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Final
Remedial Investigation Report
Presidio Main Installation

Presidio of San Francisco

Volume II
Tables

Contract No. DAAA15-90-D-0018
Task Order 0002, Data Item A009

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Prepared by
DAMES & MOORE

Prepared for
U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010-5401

January 1997

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13. ABSTRACT *(Maximum 200 words)*

Dames and Moore has conducted a Remedial Investigation (RI) of the Presidio of San Francisco (PSF), CA. The objectives of the RI included the determination of the nature and extent of contamination at PSF and to quantify both the human health and ecological risk posed by that contamination. The report concludes that, in general, the Presidio does not pose a significant risk to either human health or the environment. There are, however, a number of locations where elevated risks are present. The remedial actions to abate those risks will be identified in a follow -on document called the "Presidio Main Installation, Feasibility Study".

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1. INTRODUCTION

This Final Remedial Investigation (RI) Report presents the results of the Main Installation RI conducted under the direction of the U.S. Army Environmental Center (USAEC), formerly U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) at the Presidio of San Francisco (PSF). This RI report was prepared by Dames & Moore under contract No. DAAA15-90-D-0018 with the USAEC.

Volume II, this volume, of the Final Remedial Investigation Report contains the tables referenced by the report text in Volume I. Section tabs in this volume correspond to the section tabs in Volume I, making it easy to find the corresponding tables.

The remaining seven volumes of this RI report contain information as follows: Volume I contains the text of the body of the report. Volumes III, IV, and V contain the figures referenced in Volume I. Volumes VI through VIII contain supporting documentation for the RI in Appendices A through U.

The following report outline shows section and Appendix titles for all eight report volumes and is included in the introduction section of each volume of this RI report.

1.1 Report Outline: Final Remedial Investigation Report Presidio Main Installation, Presidio of San Francisco

The following outline lists the major sections in each of the eight volumes of this RI report.

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1. Introduction
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3. Investigation Methods
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5. Crissy Field Study Area
6. Building 900s Series Study Area
7. Directorate of Engineering and Housing Study Area
8. Main Post Study Area
9. Fill Sites and Landfills
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11. Golden Gate Bridge Highway and Transportation District Study Area
12. Baker Beach Study Area
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15. Baseline Risk Assessment

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- D Building 900s Series Study Area
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- J Baker Beach Study Area
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1.2 Index of Study Areas, Buildings, and Sites, with Section Numbers

The following index shows where each study area, building, and site is discussed in the RI report. Note, however, that although all listed items are discussed, not all listed items are areas which were investigated in this RI. The index can also be cross referenced with Figure 1.2-1.

For space requirements in the index, and for brevity in the rest of this RI report, the Golden Gate Bridge, Highway, and Transportation District Study Area is abbreviated as GGBHTD Study Area. For the same reasons, the Directorate of Engineering and Housing Study Area is abbreviated as DEH Study Area.

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Table 15.2-73 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Landfill 2, Fill Sites and Landfills

Table 15.2-74 Hazard Indices for Receptors Exposed to Water and Sediment at El Polin Spring, Fill Sites and Landfills

Table 15.2-75 Hazard Indices for Exposure to Shallow Soils (<3 ft) at the Transfer Station Site, Fill Sites and Landfills

Table 15.2-76 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Landfill 4, Fill Sites and Landfills

Table 15.2-77 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Fill Site 5, Fill Sites and Landfills

Table 15.2-78 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Graded Area 9, Fill Sites and Landfills

Table 15.2-79 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Landfill E, Fill Sites and Landfills

Table 15.2-80 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 662, Miscellaneous Sites

Table 15.2-81 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 680, Miscellaneous Sites

Table 15.2-82 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 1351, Miscellaneous Sites

Table 15.2-83 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Fort Point Coast Guard Station, Miscellaneous Sites

Table 15.2-84 Hazard Indices for Receptors Exposed to Water and Sediments at Lobos Creek, Miscellaneous Sites

Table 15.2-85 Hazard Indices for Receptors Exposed to Water and Sediments at Mountain Lake, Miscellaneous Sites

Table 15.2-86 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Disturbed Area 1 Outside Mounded Landfill Material Area, Baker Beach Study Area

Table 15.2-87 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Disturbed Area 1 Mounded Landfill Material Area, Baker Beach Study Area

Table 15.2-88 Hazard Indices for Receptors Exposed to Water and Sediments at Disturbed Area 1 Seep, Baker Beach Study Area

Table 15.2-89 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Disturbed Area 1a, Baker Beach Study Area

Table 15.2-90 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Disturbed Area 2, Baker Beach Study Area

Table 15.2-91 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Disturbed Area 3, Baker Beach Study Area

Table 15.2-92 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Disturbed Area 4, Baker Beach Study Area

Table 15.2-93 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Battery Howe/Wagner

Table 15.2-94 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 302, Miscellaneous Follow-on RI Sites

Table 15.2-95 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 1245, Miscellaneous Follow-on RI Sites

Table 15.2-96 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 1369, Miscellaneous Follow-on RI Sites

Table 15.2-97 Hazard Indices for Exposure to Shallow Soils (<3 ft) at Building 1388, Miscellaneous Follow-on RI Sites

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Table 2.3-1 Total and Average Precipitation Data for San Francisco, California, 1951 - 1994

MISSION DOLORES PRECIPITATION DATA (INCHES)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1951-1980	134.4	84.9	77.4	44.4	10.5	4.5	1.2	2.4	7.2	32.7	74.7	105.6
1981	4.00	1.78	3.71	0.17	0.12	0.00	0.00	0.00	0.22	1.74	3.73	4.15
1982	6.84	3.26	7.65	3.03	0.00	0.06	0.00	0.00	0.72	2.79	5.62	2.22
1984	0.50	2.34	1.32	0.92	0.16	0.30	0.00	0.24	0.10	2.94	7.45	2.10
1985	0.59	1.98	3.94	0.27	0.09	0.31	0.00	0.00	0.38	0.80	4.83	2.47
1986	4.77	8.29	6.25	0.76	0.13	0.00	0.03	0.01	1.32	0.11	0.20	1.64
1987	4.26	3.77	2.31	0.14	0.06	0.01	0.00	0.00	0.00	1.07	3.09	5.09
1988	4.93	0.40	0.07	1.73	0.66	0.70	0.00	0.00	0.00	0.64	3.70	4.23
1989	1.26	1.49	5.28	0.70	0.06	0.07	0.00	0.05	0.98	1.18	1.33	0.00
1990	4.02	2.45	1.34	0.58	2.38	0.01	0.00	0.04	0.12	0.20	0.52	1.94
1991	0.60	3.29	5.89	1.07	0.36	0.05	0.00	0.42	0.00	2.35	0.50	2.32
1992	2.09	6.34	4.41	0.38	0.00	0.39	0.00	0.02	0.00	1.16	0.40	6.03
1993	9.82	4.48	2.90	0.71	0.87	0.27	0.00	0.00	0.00	0.33	2.16	2.25
1994	2.77	4.87	0.35	1.12	1.31	0.06	0.00	0.00	0.22	0.33	10.49	2.69
AVERAGE	4.21	3.01	2.86	1.30	0.39	0.16	0.03	0.07	0.26	1.12	2.76	3.32

Table 2.3-2 Well Yield Calculations (page 1 of 2)

Well ID	Date	Estimated Well Yield (gpd)
HWGW01	7/27/92	183*
	7/28/92	480*
	8/25/92	113
	11/7/94	187
	12/5/94	312
	8/14/95	173
HWGW04	7/27/92	187*
	8/25/92	281
	8/15/95	207
HWGW05	8/11/92	14*
	8/15/95	43
NKGW01	8/26/92	62*
	11/10/94	52
	8/15/95	130
NKGW02	8/15/95	20
NKGW03	1/6/95	47*
NKGW04	1/6/95	94*
	4/5/95	94
NKGW05	1/5/95	468*
	4/5/95	317
LF1GW01	11/20/90	133
	8/26/92	374
LF1GW03	11/13/90	156*
	9/10/92	187
LF1GW04	11/14/90	312*
	9/10/92	312

* Result based on well development data.

Table 2.3-2 Well Yield Calculations (page 2 of 2)

Well ID	Date	Estimated Well Yield (gpd)
LF1GW05	11/13/90	103*
	9/10/92	34
	4/7/95	187
LF2GW01	11/2/90	94*
	8/28/92	94
	11/9/94	187
LF2GW02	9/14/92	62
	8/8/95	115
LF2GW04	12/20/94	133
	8/31/95	230
	8/31/95	144
231GW02	12/3/90	34
231GW04	11/3/90	336*
	12/4/90	199
231GW07	11/6/90	468*
DAEGW03	10/27/90	720*
DAEGW05	11/7/90	146*
DAEGW06	1/5/95	23*
	4/4/95	49
	8/8/95	79
DAEGW07	12/19/96	156*

* Result based on well development data.

Table 2.3-3. Summary of Estimated Well Yields for PSF RI Sites

RI Site	Well ID	Number of Tests	Minimum Yield (gpd)	Maximum Yield (gpd)	Average Yield (gpd)	Average Site Yield (gpd)
Battery	HWGW01	6	113	480	241	
Howe/	HWGW04	3	187	281	225	
Wagner	HWGW05	2	14	43	27	
						165
Nike Facility	NKGW01	3	52	130	81	
	NKGW02	1	---	---	20	
	NKGW03	1	---	---	47	
	NKGW04	2	94	94	94	
	NKGW05	2	468	317	392	
						127
Fill Site 1	LF1GW01	2	133	374	254	
	LF1GW03	2	156	187	172	
	LF1GW04	2	312	312	312	
	LF1GW05	3	34	187	108	
						211
Landfill 2	LF2GW01	3	94	187	125	
	LF2GW02	2	62	115	89	
	LF2GW04	3	133	230	169	
						128
Building 231	231GW02	1	---	---	34	
	231GW04	2	199	336	268	
	231GW07	1	---	---	468	
						257
Landfill E	DAEGW03	1	---	---	720	
	DAEGW05	1	---	---	146	
	DAEGW06	3	23	78	50	
	DAEGW07	1	---	---	156	
						268

Table 3.2-1 Summary of Source Water Sample Detections, Initial RI

Sample Location	Well 6	Well 6	Well 6
Sample ID	SOR0601	SOR0602	SOR0603
Sample Date	11/26/90	12/03/90	12/18/90
INORGANICS (μg/L)			
Arsenic	19.9	<2.35	NA
Barium	19.3	18.4	NA
Calcium	26,500	27,500	NA
Magnesium	32,400	33,700	NA
Mercury	<2.008[h]	<0.100	NA
Sodium	29,300	30,600	NA
Zinc	195	25.4	NA
MISCELLANEOUS PARAMETERS (μg/L)			
Alkalinity/Bicarbonate	155,000*	NA	NA
Chloride	38,000[a],*	NA	NA
Fluoride	423*	NA	NA
Nitrate	20,000*	NA	NA
Sulfate	38,000[a],*	NA	NA
Total Dissolved Solids	290,000*	NA	NA
VOLATILE ORGANICS	NA	NA	ND
SEMIVOLATILE ORGANICS	ND	ND	NA
PESTICIDES	ND	ND	NA

μg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than
NA = not analyzed
ND = no detections above certified reporting limit
* = sample collected on 11/28/90
[a] = diluted sample
[h] = error in electronic database

Table 3.2-2 Summary of Groundwater Sample Detections, PSF Supply Wells, Supplemental RI (page 1 of 2)

Sample Location	Well 13	Well 6	Well 6
Sample ID	PSFGW13	SORGW06	SORGW06
Sample Date	09/09/92	08/28/92	08/28/92
	(Filtered Inorganics)	(Filtered Inorganics)	(Unfiltered Inorganics)
INORGANICS (µg/L)			
Barium	20.500	19.300	33.400
Cadmium	<4.010	<4.010	35.200
Calcium	29700.000	28300.000	29000.000
Iron	<38.800	<38.800	65.000
Lead	2.600	103.000	<1.260
Magnesium	35200.000	32100.000	32300.000
Manganese	4.500	16.400	15.700
Potassium	1680.000	1900.000	1570.000
Selenium	<3.020	<3.020	7.990
Sodium	30800.000	31400.000	31900.000
Vanadium	<11.000	<11.000	13.600
Zinc	<21.100	<21.000	24.000
MISCELLANEOUS PARAMETERS (µg/L)			
Alkalinity			
Total	133000.000	150000.000	
Bicarbonate	132000.000	146000.000	
Carbonate	<2500.000	4330.000	
Hydroxide	40.000	158.000	
Chloride	44000.000	48000.000	
Nitrate	129.000	66.900	
Sulfate	36600.000	33600.000	
TDS	342000.000	357000.000	
VOLATILE ORGANICS			
No detections above certified reporting limit or the method detection limit			
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			

µg/L = micrograms per liter
NA = not analyzed
< = less than certified reporting limit or method detection limit

Table 3.2-2 Summary of Groundwater Sample Detections, PSF Supply Wells, Supplemental RI
(page 2 of 2)

Sample ID	PSFGW13	SORGW06
Sample Date	09/09/92	08/28/92
ORGANOCHLORINE PESTICIDES		
No detections above method detection limit		
POLYCHLORINATED BIPHENYLS		
No detections above certified reporting limit		
CHLORINATED HERBICIDES		
No detections above method detection limit		
TOTAL PETROLEUM HYDROCARBONS (µg/L)		
TPH-diesel fraction	<50.000	80.000

µg/L = micrograms per liter
NA = not analyzed
< = less than certified reporting limit or method detection limit

Table 3.3-1 Target Analyte List, Analytical Methods, and Reporting Limits for Wipe Samples, Initial and Supplemental RI (page 1 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit ($\mu g/cm^2$)
INORGANICS			
Aluminum	DataChem	99	14.400
Antimony	DataChem	99	0.008
Arsenic	DataChem	99	0.004
Barium	DataChem	99	0.006
Beryllium	DataChem	99	0.001
Cadmium	DataChem	99	0.006
Calcium	DataChem	99	*
Chromium	DataChem	99	0.006
Cobalt	DataChem	99	0.001
Copper	DataChem	99	0.022
Cyanide	DataChem	99	0.0004
Iron	DataChem	99	*
Lead	DataChem	99	*
Magnesium	DataChem	99	*
Manganese	DataChem	99	0.006
Mercury	DataChem	99	0.0002
Nickel	DataChem	99	0.006
Potassium	DataChem	99	0.072
Selenium	DataChem	99	0.003
Silver	DataChem	99	0.001
Sodium	DataChem	99	*
Thallium	DataChem	99	0.008
Vanadium	DataChem	99	0.006
Zinc	DataChem	99	0.022
SEMIVOLATILE ORGANICS			
1,2,4-Trichlorobenzene	DataChem	99	0.001
1,2-Dichlorobenzene	DataChem	99	0.001
1,3-Dichlorobenzene	DataChem	99	0.001
1,4-Dichlorobenzene	DataChem	99	0.002
2,4,5-Trichlorophenol	DataChem	99	0.002
2,4,6-Trichlorophenol	DataChem	99	0.001
2,4-Dichlorophenol	DataChem	99	0.001
2,4-Dimethylphenol	DataChem	99	0.001
2,4-Dinitrophenol	DataChem	99	0.015
2,4-Dinitrotoluene	DataChem	99	0.002
2,6-Dinitrotoluene	DataChem	99	0.001
2-Chloronaphthalene	DataChem	99	0.001
2-Chlorophenol	DataChem	99	0.001

Table 3.3-1 Target Analyte List, Analytical Methods, and Reporting Limits for Wipe Samples, Initial and Supplemental RI (page 2 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit ($\mu g/cm^2$)
SEMIVOLATILE ORGANICS (Continued)			
2-Methylnaphthalene	DataChem	99	0.002
2-Methylphenol	DataChem	99	0.002
2-Nitroaniline	DataChem	99	0.002
2-Nitrophenol	DataChem	99	0.001
3,3'-Dichlorobenzidine	DataChem	99	0.002
3-Nitroaniline	DataChem	99	0.002
4,6-Dinitro-2-cresol	DataChem	99	0.008
4-Bromophenyl-phenylether	DataChem	99	0.001
4-Chloro-3-cresol	DataChem	99	0.001
4-Chloroaniline	DataChem	99	0.004
4-Chlorophenyl-phenylether	DataChem	99	0.002
4-Methylphenol	DataChem	99	0.002
4-Nitroaniline	DataChem	99	0.002
4-Nitrophenol	DataChem	99	0.001
Acenaphthene	DataChem	99	0.003
Acenaphthylene	DataChem	99	0.001
Anthracene	DataChem	99	0.001
Benzo(a)anthracene	DataChem	99	0.003
Benzo(a)pyrene	DataChem	99	0.001
Benzo(b)fluoranthene	DataChem	99	0.002
Benzo(g,h,i)perylene	DataChem	99	0.001
Benzo(k)fluoranthene	DataChem	99	0.001
Benzoic acid	DataChem	99	0.002
Benzyl alcohol	DataChem	99	0.002
Bis(2-chloroethoxy)methane	DataChem	99	0.002
Bis(2-chloroethyl)ether	DataChem	99	0.002
Bis(2-chloroisopropyl)ether	DataChem	99	0.002
Bis(2-ethylhexyl)phthalate	DataChem	99	0.002
Butylbenzylphthalate	DataChem	99	0.001
Chrysene	DataChem	99	0.001
Di-n-butylphthalate	DataChem	99	0.001
Di-n-octylphthalate	DataChem	99	0.001
Dibenz(a,h)anthracene	DataChem	99	0.001
Dibenzofuran	DataChem	99	0.002
Diethylphthalate	DataChem	99	0.001
Dimethylphthalate	DataChem	99	0.001
Fluoranthene	DataChem	99	0.001
Fluorene	DataChem	99	0.001
Hexachlorobenzene	DataChem	99	0.001
Hexachlorobutadiene	DataChem	99	0.001

Table 3.3-1 Target Analyte List, Analytical Methods, and Reporting Limits for Wipe Samples, Initial and Supplemental RI (page 3 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit ($\mu g/cm^2$)
SEMIVOLATILE ORGANICS (Continued)			
Hexachlorocyclopentadiene	DataChem	99	0.001
Hexachloroethane	DataChem	99	0.001
Indeno(1,2,3-c,d)pyrene	DataChem	99	0.001
Isophorone	DataChem	99	0.001
N-Nitroso-di-n-propylamine	DataChem	99	0.001
N-Nitrosodiphenylamine	DataChem	99	0.001
Naphthalene	DataChem	99	0.001
Nitrobenzene	DataChem	99	0.001
Pentachlorophenol	DataChem	99	0.001
Phenanthrene	DataChem	99	0.002
Phenol	DataChem	99	0.001
Pyrene	DataChem	99	0.001
ORGANOCHLORINE PESTICIDES			
Aldrin	DataChem	99	0.001
alpha-BHC	DataChem	99	0.002
beta-BHC	DataChem	99	0.000
delta-BHC	DataChem	99	0.001
gamma-BHC (Lindane)	DataChem	99	0.002
Chlordane	DataChem	99	0.096
Dieldrin	DataChem	99	0.001
Endosulfan I	DataChem	99	0.005
Endosulfan II	DataChem	99	0.005
Endosulfan sulfate	DataChem	99	0.002
Endrin	DataChem	99	0.005
Endrin aldehyde	DataChem	99	0.048
Endrin ketone	DataChem	99	0.002
Heptachlor	DataChem	99	0.001
Heptachlor expoxide	DataChem	99	0.001
Methoxychlor	DataChem	99	0.002
p,p'-DDD	DataChem	99	0.002
p,p'-DDE	DataChem	99	0.002
p,p'-DDT	DataChem	99	0.002
Toxaphene	DataChem	99	0.014

Table 3.3-1 Target Analyte List, Analytical Methods, and Reporting Limits for Wipe Samples, Initial and Supplemental RI (page 4 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit ($\mu g/cm^2$)
POLYCHLORINATED BIPHENYLS			
PCB-1016	DataChem	99	0.006
PCB-1221	DataChem	99	0.006
PCB-1232	DataChem	99	0.006
PCB-1242	DataChem	99	0.006
PCB-1248	DataChem	99	0.006
PCB-1254	DataChem	99	0.006
PCB-1260	DataChem	99	0.006
PCB-1016	ESE	8701M70	1.0
PCB-1221	ESE	8701M70	1.0
PCB-1232	ESE	8701M70	1.0
PCB-1242	ESE	8701M70	1.0
PCB-1248	ESE	8701M70	1.0
PCB-1254	ESE	8701M70	1.0
PCB-1260	ESE	8701M70	1.0

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

$\mu g/cm^2$ = micrograms per square centimeter.

1 = Wipe samples were analyzed using USAEC non-approved methods (99). Methods of analysis and similar EPA methods, by analytical group, are as follows: Inorganics/GFAA-7060, GFAA-7740, ICP-6010, colormetric-9010, CVAA-7471, VOCs/GCMS-8240, SVOCs/GCMS-8270, OCPs/GCEC-8080 and GCMS-8270, Explosives/HPLC, PCBs/GCMS-8270.

* = Analyte always detected above reporting limit.

Table 3.3-2 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Initial RI (page 1 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
INORGANICS			
Aluminum	DataChem	JS12	11.2
Antimony	DataChem	JS12	19.600
Arsenic	DataChem	B9	2.500
Barium	DataChem	JS12	3.29
Beryllium	DataChem	JS12	0.427
Cadmium	DataChem	JS12	1.200
Calcium	DataChem	JS12	25.3
Chromium	DataChem	JS12	1.04
Cobalt	DataChem	JS12	2.500
Copper	DataChem	JS12	2.840
Cyanide	DataChem	KF15	0.250
Iron	DataChem	JS12	6.66
Lead	DataChem	JS12	7.440
Magnesium	DataChem	JS12	10.1
Manganese	DataChem	JS12	9.87
Mercury	DataChem	Y9	0.050
Nickel	DataChem	JS12	2.74
Potassium	DataChem	JS12	131.000
Selenium	DataChem	JD20	0.449
Silver	DataChem	JS12	0.803
Sodium	DataChem	JS12	38.7
Thallium	DataChem	JS12	34.300
Vanadium	DataChem	JS12	1.41
Zinc	DataChem	JS12	2.34
VOLATILE ORGANICS			
1,1,1-Trichloroethane	DataChem	LM23	0.200
1,1-Dichloroethane	DataChem	LM23	0.490
1,1-Dichloroethene	DataChem	LM23	0.270
1,1,2,2-Tetrachloroethane	DataChem	LM23	0.200
1,1,2-Trichloroethane	DataChem	LM23	0.330
1,2-Dichloroethane	DataChem	LM23	0.320
1,2-Dichloroethenes (cis and trans isomers)	DataChem	LM23	0.320
1,2-Dichloropropane	DataChem	LM23	0.530
cis-1,3-Dichloropropene	DataChem	LM23	0.600
trans-1,3-Dichloropropene	DataChem	LM23	0.600
2-Hexanone (Methyl-n-butyl ketone)	DataChem	LM23	1.000
4-Methyl-2-pentanone (MIBK)	DataChem	LM23	0.630
Acetone	DataChem	LM23	3.300

Table 3.3-2 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Initial RI (page 2 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
VOLATILE ORGANICS (Continued)			
Benzene	DataChem	LM23	0.100
Bromodichloromethane	DataChem	LM23	0.200
Bromoform	DataChem	LM23	0.200
Bromomethane	DataChem	LM23	0.260
Carbon disulfide	DataChem	LM23	0.600
Carbon tetrachloride	DataChem	LM23	0.310
Chlorobenzene	DataChem	LM23	0.100
Chloroethane	DataChem	LM23	0.640
Chloroform	DataChem	LM23	0.240
Chloromethane	DataChem	LM23	0.960
Dibromochloromethane	DataChem	LM23	0.250
Ethylbenzene	DataChem	LM23	0.190
Methylene chloride	DataChem	LM23	4.400
Methylethyl ketone (2-Butanone)	DataChem	LM23	4.300
Styrene	DataChem	LM23	0.600
Tetrachloroethene	DataChem	LM23	0.160
Toluene	DataChem	LM23	0.100
Trichloroethene	DataChem	LM23	0.230
Trichlorofluoromethane	DataChem	LM23	0.230
Vinyl chloride (chloroethene)	DataChem	LM23	1.800
Vinyl ester	DataChem	LM23	1.000
Xylene (m)	DataChem	LM23	0.230
Xylenes (o & p)	DataChem	LM23	0.780
SEMIVOLATILE ORGANICS			
1,2-Dichlorobenzene	DataChem	LM25	0.042
1,2,3-Trichlorobenzene	DataChem	LM25	0.032
1,2,4-Trichlorobenzene	DataChem	LM25	0.220
1,3-Dichlorobenzene	DataChem	LM25	0.042
1,4-Dichlorobenzene	DataChem	LM25	0.034
2-Chloronaphthalene	DataChem	LM25	0.240
2-Chlorophenol	DataChem	LM25	0.055
2-Methylnaphthalene	DataChem	LM25	0.032
2-Methylphenol	DataChem	LM25	0.098
2-Nitroaniline	DataChem	LM25	3.100
2-Nitrophenol	DataChem	LM25	1.100
2,4-Dichlorophenol	DataChem	LM25	0.065
2,4-Dimethylphenol	DataChem	LM25	3.000
2,4-Dinitrophenol	DataChem	LM25	4.700

Table 3.3-2 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Initial RI (page 3 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
SEMIVOLATILE ORGANICS (Continued)			
2,4-Dinitrotoluene	DataChem	LM25	1.400
2,4,5-Trichlorophenol	DataChem	LM25	0.490
2,4,6-Trichlorophenol	DataChem	LM25	0.061
2,6-Dinitrotoluene	DataChem	LM25	0.320
3-Nitroaniline	DataChem	LM25	3.000
3,3'-Dichlorobenzidine	DataChem	LM25	1.600
4-Bromophenyl-phenylether	DataChem	LM25	0.041
4-Chloro-3-cresol	DataChem	LM25	0.930
4-Chloroaniline	DataChem	LM25	0.630
4-Chlorophenyl-phenylether	DataChem	LM25	0.170
4-Methylphenol	DataChem	LM25	0.240
4-Nitroaniline	DataChem	LM25	3.100
4-Nitrophenol	DataChem	LM25	3.300
4,6-Dinitro-2-cresol	DataChem	LM25	0.800
Acenaphthene	DataChem	LM25	0.041
Acenaphthylene	DataChem	LM25	0.033
Anthracene	DataChem	LM25	0.710
Benzo(a)anthracene	DataChem	LM25	0.041
Benzo(a)pyrene	DataChem	LM25	1.200
Benzo(b)fluoranthene	DataChem	LM25	0.310
Benzo(g,h,i)perylene	DataChem	LM25	0.180
Benzo(k)fluoranthene	DataChem	LM25	0.130
Benzoic acid	DataChem	LM25	3.100
Benzyl alcohol	DataChem	LM25	0.032
Bis(2-chloroethoxy)methane	DataChem	LM25	0.190
Bis(2-chloroethyl)ether	DataChem	LM25	0.360
Bis(2-chloroisopropyl)ether	DataChem	LM25	0.440
Bis(2-ethylhexyl)phthalate	DataChem	LM25	0.480
Butylbenzylphthalate	DataChem	LM25	1.800
Chrysene	DataChem	LM25	0.032
Di-n-butylphthalate	DataChem	LM25	1.300
Di-n-octylphthalate	DataChem	LM25	0.230
Dibenz(a,h)anthracene	DataChem	LM25	0.310
Dibenzofuran	DataChem	LM25	0.038
Diethylphthalate	DataChem	LM25	0.240
Dimethylphthalate	DataChem	LM25	0.063
Fluoranthene	DataChem	LM25	0.032
Fluorene	DataChem	LM25	0.065
Hexachlorobenzene	DataChem	LM25	0.080
Hexachlorobutadiene	DataChem	LM25	0.970

Table 3.3-2 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Initial RI (page 4 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
SEMIVOLATILE ORGANICS (Continued)			
Hexachlorocyclopentadiene	DataChem	LM25	0.520
Hexachloroethane	DataChem	LM25	1.800
Indeno(1,2,3-c,d)pyrene	DataChem	LM25	2.400
Isophorone	DataChem	LM25	0.390
N-Nitroso-di-n-propylamine	DataChem	LM25	1.100
N-Nitrosodiphenylamine	DataChem	LM25	0.290
Naphthalene	DataChem	LM25	0.740
Nitrobenzene	DataChem	LM25	1.800
Pentachlorophenol	DataChem	LM25	0.760
Phenanthrene	DataChem	LM25	0.032
Phenol	DataChem	LM25	0.052
Pyrene	DataChem	LM25	0.083
PCB-1016	DataChem	LM25	0.320
PCB-1221	DataChem	LM25	1.900
PCB-1232	DataChem	LM25	1.900
PCB-1242	DataChem	LM25	1.900
PCB-1248	DataChem	LM25	1.900
PCB-1254	DataChem	LM25	3.800
PCB-1260	DataChem	LM25	0.790
ORGANOCHLORINE PESTICIDES			
Aldrin	DataChem	LM25	1.300
alpha-BHC	DataChem	LM25	1.300
beta-BHC	DataChem	LM25	1.300
delta-BHC	DataChem	LM25	0.210
gamma-BHC (Lindane)	DataChem	LM25	0.680
Chlordane	DataChem	LM25	0.680
Dieldrin	DataChem	LM25	0.079
Endosulfan I	DataChem	LM25	0.400
Endosulfan II	DataChem	LM25	2.400
Endosulfan sulfate	DataChem	LM25	1.200
Endrin	DataChem	LM25	1.300
Endrin aldehyde	DataChem	LM25	1.800

Note: Not all samples were analyzed for each compound group (e.g VOCs, SVOCs). See text for specific analyte suites.

μg/g = micrograms per gram

1 = USAEC approved methods begin with a letter. Methods of analysis and similar EPA methods are as follows: B9/GFAA-3050, 7060, JD20/GFAA-3050, 7740, JS12/ICP-3050, 6010, KF15/colormetric-9010, LH17/GCEC-8080, LM23/GCMS-8240, LM25/GCMS-3540, 8270, Y9/CVAA-7471. USAEC non-approved methods are 00. Methods of analysis and similar EPA methods, by analytical name, are as follows: TPH/infrared-418.1

Table 3.3-2 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Initial RI (page 5 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
ORGANOCHLORINE PESTICIDES (Continued)			
Endrin ketone	DataChem	LM25	0.280
Heptachlor	DataChem	LM25	0.240
Heptachlor epoxide	DataChem	LM25	0.480
Methoxychlor	DataChem	LM25	0.260
p,p'-DDD	DataChem	LM25	0.064
p,p'-DDE	DataChem	LM25	0.068
p,p'-DDT	DataChem	LM25	0.100
Toxaphene	DataChem	LM25	12.000
POLYCHLORINATED BIPHENYLS			
PCB-1016	DataChem	LH17	0.100
PCB-1221	DataChem	LH17	0.100
PCB-1232	DataChem	LH17	0.100
PCB-1242	DataChem	LH17	0.100
PCB-1248	DataChem	LH17	0.100
PCB-1254	DataChem	LH17	0.048
PCB-1260	DataChem	LH17	0.048
TOTAL PETROLEUM HYDROCARBONS			
Total Petroleum Hydrocarbons	DataChem	00	10.000

Note: Not all samples were analyzed for each compound group (e.g VOCs, SVOCs). See text for specific analyte suites.

μg/g = micrograms per gram

1 = USAEC approved methods begin with a letter. Methods of analysis and similar EPA methods are as follows: B9/GFAA-3050, 7060, JD20/GFAA-3050, 7740, JS12/ICP-3050, 6010, KF15/colormetric-9010, LH17/GCEC-8080, LM23/GCMS-8240, LM25/GCMS-3540, 8270, Y9/CVAA-7471. USAEC non-approved methods are 00. Methods of analysis and similar EPA methods, by analytical name, are as follows: TPH/infrared-418.1

Table 3.3-3 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Initial RI (page 1 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/L)
INORGANICS			
Aluminum	DataChem	SS12	12.000
Antimony	DataChem	SS12	60.000
Arsenic	DataChem	AX8	2.350
Barium	DataChem	SS12	2.820
Beryllium	DataChem	SS12	1.120
Boron	DataChem	SS12	230
Cadmium	DataChem	SS12	6.780
Calcium	DataChem	SS12	105
Chromium	DataChem	SS12	16.800
Cobalt	DataChem	SS12	25.000
Copper	DataChem	SS12	18.800
Cyanide	DataChem	TF34	5.000
Iron	DataChem	SS12	77.500
Lead	DataChem	SD18	4.470
Magnesium	DataChem	SS12	135
Manganese	DataChem	SS12	9.670
Mercury	DataChem	CC8	0.100
Nickel	DataChem	SS12	32.100
Potassium	DataChem	SS12	1240.000
Selenium	DataChem	SD25	2.530
Silver	DataChem	SS12	10.000
Sodium	DataChem	SS12	279
Thallium	DataChem	SS12	125.000
Vanadium	DataChem	SS12	27.600
Zinc	DataChem	SS12	18.000
MISCELLANEOUS PARAMETERS			
Alkalinity, bicarbonate	DataChem	00	5000.000
Alkalinity, carbonate	DataChem	00	5000.000
Alkalinity, hydroxide	DataChem	00	5000.000
Chloride	DataChem	TT09	278
Coliform (fecal)	BC Analytical	99	*
Coliform (total)	BC Analytical	99	*
Fluoride	DataChem	TT09	153
Foaming agents	DataChem	99	300
Nitrite, nitrate-non-specific	DataChem	LL8	10
Phenolics (non-specific)	DataChem	99	10.000
Sulfate	DataChem	TT09	175
Sulfide	DataChem	99	1000.000
Total Dissolved Solids	DataChem	00	*

Table 3.3-3 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Initial RI (page 2 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/L)
VOLATILE ORGANICS			
1,1-Dichloroethane	DataChem	UM21	1.000
1,1-Dichloroethene	DataChem	UM21	1.000
1,1,1-Trichloroethane	DataChem	UM21	1.000
1,1,2-Trichloroethane	DataChem	UM21	1.000
1,1,2,2-Tetrachloroethane	DataChem	UM21	1.500
1,2-Dichloroethane	DataChem	UM21	1.000
1,2-Dichloroethenes (cis and trans isomers)	DataChem	UM21	5.000
1,2-Dichloropropane	DataChem	UM21	1.000
cis-1,3-Dichloropropene	DataChem	UM21	5.000
trans-1,3-Dichloropropene	DataChem	UM21	5.000
2-Hexanone(Methyl-n-butyl ketone)	DataChem	UM21	10.000
4-Methyl-2-pentanone (MIBK)	DataChem	UM21	1.400
Acetone	DataChem	UM21	8.000
Benzene	DataChem	UM21	1.000
Bromodichloromethane	DataChem	UM21	1.000
Bromoform	DataChem	UM21	11.000
Bromomethane	DataChem	UM21	14.000
Carbon disulfide	DataChem	UM21	5.000
Carbon tetrachloride	DataChem	UM21	1.000
Chlorobenzene	DataChem	UM21	1.000
Chloroethane	DataChem	UM21	8.000
Chloroform	DataChem	UM21	1.000
Chloromethane	DataChem	UM21	1.200
Dibromochloromethane	DataChem	UM21	1.000
Ethylbenzene	DataChem	UM21	1.000
Methylene chloride	DataChem	UM21	1.000
Methylethyl ketone (2-Butanone)	DataChem	UM21	10.000
Styrene	DataChem	UM21	5.000
Tetrachloroethene	DataChem	UM21	1.000
Toluene	DataChem	UM21	1.000
Trichloroethene	DataChem	UM21	1.000
Trichlorofluoromethane	DataChem	UM21	1.000
Vinyl chloride (Chloroethene)	DataChem	UM21	12.000
Vinyl ester	DataChem	UM21	10.000
Xylene (m)	DataChem	UM21	1.000
Xylenes (o & p)	DataChem	UM21	2.000
SEMIVOLATILE ORGANICS			
1,2-Dichlorobenzene	DataChem	UM25	1.200
1,2,4-Trichlorobenzene	DataChem	UM25	2.400

Table 3.3-3 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Initial RI (page 3 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/L)
SEMIVOLATILE ORGANICS (Continued)			
1,3-Dichlorobenzene	DataChem	UM25	3.400
1,4-Dichlorobenzene	DataChem	UM25	1.500
2-Chloronaphthalene	DataChem	UM25	2.600
2-Chlorophenol	DataChem	UM25	2.800
2-Methylnaphthalene	DataChem	UM25	1.300
2-Methylphenol	DataChem	UM25	3.600
2-Nitroaniline	DataChem	UM25	3.100
2-Nitrophenol	DataChem	UM25	8.200
2,4-Dichlorophenol	DataChem	UM25	8.400
2,4-Dimethylphenol	DataChem	UM25	4.400
2,4-Dinitrophenol	DataChem	UM25	176.000
2,4-Dinitrotoluene	DataChem	UM25	5.800
2,4,5-Trichlorophenol	DataChem	UM25	2.800
2,4,6-Trichlorophenol	DataChem	UM25	3.600
2,6-Dinitrotoluene	DataChem	UM25	6.700
3-Nitroaniline	DataChem	UM25	15.000
3,3'-Dichlorobenzidine	DataChem	UM25	5.000
4-Bromophenyl-phenylether	DataChem	UM25	22.000
4-Chloro-3-cresol	DataChem	UM25	8.500
4-Chloroaniline	DataChem	UM25	1.000
4-Chlorophenyl-phenylether	DataChem	UM25	23.000
4-Methylphenol	DataChem	UM25	2.800
4-Nitroaniline	DataChem	UM25	3.100
4-Nitrophenol	DataChem	UM25	96.000
4,6-Dinitro-2-cresol	DataChem	UM25	50.000
Acenaphthene	DataChem	UM25	5.800
Acenaphthylene	DataChem	UM25	5.100
Anthracene	DataChem	UM25	5.200
Benzo(a)anthracene	DataChem	UM25	9.800
Benzo(a)pyrene	DataChem	UM25	14.000
Benzo(b)fluoranthene	DataChem	UM25	10.000
Benzo(g,h,i)perylene	DataChem	UM25	15.000
Benzo(k)fluoranthene	DataChem	UM25	10.000
Benzoic acid	DataChem	UM25	3.100
Benzyl alcohol	DataChem	UM25	4.000
Bis(2-chloroethoxy)methane	DataChem	UM25	6.800
Bis(2-chloroethyl)ether	DataChem	UM25	0.680
Bis(2-chloroisopropyl)ether	DataChem	UM25	5.000
Bis(2-ethylhexyl)phthalate	DataChem	UM25	7.700
Butylbenzylphthalate	DataChem	UM25	28.000
Chrysene	DataChem	UM25	7.400

Table 3.3-3 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Initial RI (page 4 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/L)
SEMIVOLATILE ORGANICS (Continued)			
Di-n-butylphthalate	DataChem	UM25	33.000
Di-n-octylphthalate	DataChem	UM25	1.500
Dibenz(a,h)anthracene	DataChem	UM25	12.000
Dibenzofuran	DataChem	UM25	5.100
Diethylphthalate	DataChem	UM25	5.900
Dimethylphthalate	DataChem	UM25	2.200
Fluoranthene	DataChem	UM25	24.000
Fluorene	DataChem	UM25	9.200
Hexachlorobenzene	DataChem	UM25	12.000
Hexachlorobutadiene	DataChem	UM25	8.700
Hexachlorocyclopentadiene	DataChem	UM25	54.000
Hexachloroethane	DataChem	UM25	8.300
Indeno(1,2,3-c,d)pyrene	DataChem	UM25	21.000
Isophorone	DataChem	UM25	2.400
N-Nitroso-di-n-propylamine	DataChem	UM25	6.800
N-Nitrosodiphenylamine	DataChem	UM25	3.700
Naphthalene	DataChem	UM25	0.500
Nitrobenzene	DataChem	UM25	3.700
Pentachlorophenol	DataChem	UM25	9.100
Phenanthrene	DataChem	UM25	9.900
Phenol	DataChem	UM25	2.200
Pyrene	DataChem	UM25	17.000
PCB-1016	DataChem	UM25	9.100
PCB-1221	DataChem	UM25	7.200
PCB-1232	DataChem	UM25	9.900
PCB-1242	DataChem	UM25	5.200
PCB-1248	DataChem	UM25	38.000
PCB-1254	DataChem	UM25	33.000
PCB-1260	DataChem	UM25	13.000
ORGANOCHLORINE PESTICIDES			
Aldrin	DataChem	UM25	13.000
alpha-BHC	DataChem	UM25	5.300
beta-BHC	DataChem	UM25	17.000
delta-BHC	DataChem	UM25	3.000
gamma-BHC (Lindane)	DataChem	UM25	7.200
Chlordane	DataChem	UM25	37.000
Dieldrin	DataChem	UM25	26.000
Endosulfan I	DataChem	UM25	23.000
Endosulfan II	DataChem	UM25	42.000

Table 3.3-3 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Initial RI (page 5 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/L)
ORGANOCHLORINE PESTICIDES (Continued)			
Endosulfan sulfate	DataChem	UM25	50.000
Endrin	DataChem	UM25	18.000
Endrin ketone	DataChem	UM25	6.000
Heptachlor	DataChem	UM25	38.000
Heptachlor expoxide	DataChem	UM25	28.000
Methoxychlor	DataChem	UM25	11.000
p,p'-DDD	DataChem	UM25	18.000
p,p'-DDE	DataChem	UM25	14.000
p,p'-DDT	DataChem	UM25	18.000
Toxaphene	DataChem	UM25	17.000
POLYCHLORINATED BIPHENYLS			
PCB-1016	DataChem	UH20	0.385
PCB-1221	DataChem	UH20	0.100/0.385
PCB-1232	DataChem	UH20	0.100/0.385
PCB-1242	DataChem	UH20	0.100/0.385
PCB-1248	DataChem	UH20	0.100/0.385
PCB-1254	DataChem	UH20	0.048/0.176
PCB-1260	DataChem	UH20	0.176
TOTAL PETROLEUM HYDROCARBONS			
Total Petroleum Hydrocarbons	DataChem	00	100.000

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

μg/L - micrograms per liter

1 = USAEC approved methods begin with a letter. Methods of analysis and similar EPA methods are as follows: AX8/GFAA-206.2, CC8/CVAA-241.1, LL8/technicon-353.2, SD18/GFAA-239.2, SD25/GFAA-270.2, SS12/ICP-6010, 200.7, TF34/technicon-9010, TT09/ionchromatography-300, UM21/GCMS-624, UM25/GCMS-625. USAEC non-approved methods are 00 or 99. Methods of analysis, by analyte name, are as follows: alkalinity/titrimetric, TDS/gravimetric-160.1, foaming agents/colorimetric, phenolics/technicon, colorimetric-420.2, sulfide/titrimetric, coliform/multiple tube-9131, TPH/infrared-418.1

* = Analyte always detected above reporting limit.

Table 3.3-4 Target Analyte List, Analytical Methods, and Reporting Limits for Product Samples, Initial RI (page 1 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
INORGANICS			
Antimony	BC Analytical	99	0.200
Arsenic	BC Analytical	99	*
Barium	BC Analytical	99	*
Beryllium	BC Analytical	99	1.000
Cadmium	BC Analytical	99	5.000
Chromium	BC Analytical	99	5.000
Cobalt	BC Analytical	99	5.000
Copper	BC Analytical	99	5.000
Cyanide	BC Analytical	99	0.500
Lead	BC Analytical	99	*
Mercury	BC Analytical	99	0.050
Molybdenum	BC Analytical	99	20.000
Nickel	BC Analytical	99	10.000
Selenium	BC Analytical	99	2.000
Silver	BC Analytical	99	5.000
Thallium	BC Analytical	99	20.000
Vanadium	BC Analytical	99	5.000
Zinc	BC Analytical	99	*
VOLATILE ORGANICS			
1,1-Dichloroethane	BC Analytical	99	4.000
1,1-Dichloroethene	BC Analytical	99	4.000
1,1,1-Trichloroethane	BC Analytical	99	4.000
1,1,2-Trichloroethane	BC Analytical	99	4.000
1,1,2,2-Tetrachloroethane	BC Analytical	99	4.000
1,2-Dichloroethane	BC Analytical	99	4.000
1,2-Dichloropropane	BC Analytical	99	4.000
cis-1,2-Dichloroethene	BC Analytical	99	4.000
trans-1,2-Dichloroethene	BC Analytical	99	4.000
cis-1,3-Dichloropropene	BC Analytical	99	4.000
trans-1,3-Dichloropropene	BC Analytical	99	4.000
2-Hexanone (Methyl-n-butyl ketone)	BC Analytical	99	4.000
4-Methyl-2-pentanone (MIBK)	BC Analytical	99	4.000
Acetone	BC Analytical	99	4.000
Benzene	BC Analytical	99	4.000
Bromodichloromethane	BC Analytical	99	4.000
Bromoform	BC Analytical	99	4.000
Bromomethane	BC Analytical	99	4.000
Carbon disulfide	BC Analytical	99	4.000

Table 3.3-4 Target Analyte List, Analytical Methods, and Reporting Limits for Product Samples, Initial RI (page 2 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/g)
VOLATILE ORGANICS (Continued)			
Carbon tetrachloride	BC Analytical	99	4.000
Chlorobenzene	BC Analytical	99	4.000
Chloroethane	BC Analytical	99	4.000
Chloroform	BC Analytical	99	4.000
Chloromethane	BC Analytical	99	4.000
Dibromochloromethane	BC Analytical	99	4.000
Ethylbenzene	BC Analytical	99	4.000
Freon	BC Analytical	99	4.000
Methylene chloride	BC Analytical	99	4.000
Methylethyl ketone (2-Butanone)	BC Analytical	99	4.000
Styrene	BC Analytical	99	4.000
Tetrachloroethene	BC Analytical	99	4.000
Toluene	BC Analytical	99	4.000
Trichloroethene	BC Analytical	99	4.000
Trichlorofluoromethane	BC Analytical	99	4.000
Vinyl chloride (Chloroethene)	BC Analytical	99	4.000
Vinyl ester	BC Analytical	99	4.000
Xylenes	BC Analytical	99	4.000
SEMIVOLATILE ORGANICS			
1,2-Dichlorobenzene	BC Analytical	99	40.000
1,2,4-Trichlorobenzene	BC Analytical	99	50.000
1,3-Dichlorobenzene	BC Analytical	99	40.000
1,4-Dichlorobenzene	BC Analytical	99	40.000
2-Chloronaphthalene	BC Analytical	99	50.000
2-Chlorophenol	BC Analytical	99	50.000
2-Methylnaphthalene	BC Analytical	99	50.000
2-Methylphenol	BC Analytical	99	50.000
2-Nitroaniline	BC Analytical	99	200.000
2-Nitrophenol	BC Analytical	99	50.000
2,4-Dichlorophenol	BC Analytical	99	50.000
2,4-Dimethylphenol	BC Analytical	99	50.000
2,4-Dinitrophenol	BC Analytical	99	500.000
2,4-Dinitrotoluene	BC Analytical	99	50.000
2,4,5-Trichlorophenol	BC Analytical	99	50.000
2,4,6-Trichlorophenol	BC Analytical	99	50.000
2,6-Dinitrotoluene	BC Analytical	99	50.000
3-Nitroaniline	BC Analytical	99	200.000
3,3'-Dichlorobenzidine	BC Analytical	99	50.000

Table 3.3-4 Target Analyte List, Analytical Methods, and Reporting Limits for Product Samples, Initial RI (page 3 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/g)
SEMIVOLATILE ORGANICS (Continued)			
4-Bromophenyl-phenylether	BC Analytical	99	50.000
4-Chloro-3-cresol	BC Analytical	99	50.000
4-Chloroaniline	BC Analytical	99	50.000
4-Chlorophenyl-phenylether	BC Analytical	99	50.000
4-Methylphenol	BC Analytical	99	50.000
4-Nitroaniline	BC Analytical	99	200.000
4-Nitrophenol	BC Analytical	99	1000.000
4,6-Dinitro-2-cresol	BC Analytical	99	50.000
Acenaphthene	BC Analytical	99	50.000
Acenaphthylene	BC Analytical	99	50.000
Anthracene	BC Analytical	99	50.000
Benzo(a)anthracene	BC Analytical	99	50.000
Benzo(a)pyrene	BC Analytical	99	50.000
Benzo(b)Fluoranthene	BC Analytical	99	50.000
Benzo(g,h,i)perylene	BC Analytical	99	50.000
Benzo(k)fluoranthene	BC Analytical	99	50.000
Benzoic acid	BC Analytical	99	200.000
Benzyl alcohol	BC Analytical	99	200.000
Bis(2-chloroethoxy)methane	BC Analytical	99	50.000
Bis(2-chloroethyl)ether	BC Analytical	99	50.000
Bis(2-chloroisopropyl)ether	BC Analytical	99	50.000
Bis(2-ethylhexyl)phthalate	BC Analytical	99	5000.000
Butylbenzylphthalate	BC Analytical	99	50.000
Chrysene	BC Analytical	99	50.000
Di-n-octylphthalate	BC Analytical	99	50.000
Dibenz(a,h)anthracene	BC Analytical	99	50.000
Dibenzofuran	BC Analytical	99	50.000
Diethylphthalate	BC Analytical	99	50.000
Dimethylphthalate	BC Analytical	99	50.000
Fluoranthene	BC Analytical	99	50.000
Fluorene	BC Analytical	99	50.000
Hexachlorobenzene	BC Analytical	99	50.000
Hexachlorobutadiene	BC Analytical	99	50.000
Hexachlorocyclopentadiene	BC Analytical	99	50.000
Hexachloroethane	BC Analytical	99	50.000
Indeno(1,2,3-c,d)pyrene	BC Analytical	99	50.000
Isophorone	BC Analytical	99	50.000
N-Nitroso-di-n-propylamine	BC Analytical	99	50.000
N-Nitrosodiphenylamine	BC Analytical	99	50.000
Naphthalene	BC Analytical	99	50.000

Table 3.3-4 Target Analyte List, Analytical Methods, and Reporting Limits for Product Samples, Initial RI (page 4 of 4)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
SEMIVOLATILE ORGANICS (Continued)			
Nitrobenzene	BC Analytical	99	50.000
Pentachlorophenol	BC Analytical	99	50.000
Phenanthrene	BC Analytical	99	50.000
Phenol	BC Analytical	99	50.000
Pyrene	BC Analytical	99	50.000
TOTAL PETROLEUM HYDROCARBONS			
Total Petroleum Hydrocarbons	BC Analytical	00	*

μg/g = micrograms per gram

1 = USAEC non-approved methods are 00 and 99. EPA methods used, by analyte group, are as follows: Inorganics/GFAA-206.2, CVAA-245.1, technicon-353.2, GFAA-239.2, GFAA-270.2, ICP-6010,200.7, technicon-9010, ionchromatography-300, VOCs/GCMS-8240, SVOCs/GCMS-8270, TPH/infrared-418.1

* Analyte detected above reporting limit in all samples.

Table 3.3-5 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Feasibility Study (page 1 of 1)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
INORGANICS			
Aluminum	Sequoia	6010	*
Antimony	Sequoia	6010	5
Arsenic	Sequoia	7000	0.25
Barium	Sequoia	6010	*
Beryllium	Sequoia	6010	0.5
Cadmium	Sequoia	6010	0.5
Calcium	Sequoia	6010	*
Chromium	Sequoia	6010	*
Cobalt	Sequoia	6010	2.5
Copper	Sequoia	6010	0.5
Cyanide	Sequoia	9010	1
Iron	Sequoia	6010	*
Lead	Sequoia	6010	*
Magnesium	Sequoia	6010	*
Manganese	Sequoia	6010	*
Mercury	Sequoia	7471	*
Nickel	Sequoia	6010	*
Potassium	Sequoia	6010	*
Selenium	Sequoia	7000	0.25
Silver	Sequoia	6010	0.5
Sodium	Sequoia	6010	*
Tetraethyl lead	Sequoia	CDHS	0.25
Thallium	Sequoia	6010	5
Vanadium	Sequoia	6010	*
Zinc	Sequoia	6010	*
TOTAL PETROLEUM HYDROCARBONS			
TPH-diesel fraction	Sequoia	8015	140
TPH- gas fraction	Sequoia	8015	1

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

μg/g = micrograms per gram.

1 = EPA method, except for tetraethyl lead, which was analyzed using the California Department of Health Services method.

* Analyte detected above reporting limit in all samples.

Table 3.3-6 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Supplemental RI (page 1 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/g)
INORGANICS			
Aluminum	ESE	JS13	20.0
Antimony	ESE	JS13	41.300
Arsenic	ESE	JD19	0.250
Barium	ESE	JS13	0.962
Beryllium	ESE	JS13	0.500
Cadmium	ESE	JS13	0.515
Calcium	ESE	JS13	72.5
Chromium	ESE	JS13	0.669
Cobalt	ESE	JS13	0.665
Copper	ESE	JS13	0.937
Cyanide	ESE	KY01	0.920
Iron	ESE	JS13	11.3
Lead	ESE	JD17	0.177
Magnesium	ESE	JS13	89.2
Manganese	ESE	JS13	2.00
Mercury	ESE	HG9	0.027
Nickel	ESE	JS13	1.540
Potassium	ESE	JS13	119.000
Selenium	ESE	JD15	0.250
Silver	ESE	JS13	0.521
Sodium	ESE	JS13	44.8
Thallium	ESE	JS13	14.700
Vanadium	ESE	JS13	1.77
Zinc	ESE	JS13	1.94
VOLATILE ORGANICS			
1,1-Dichloroethane	ESE	LM28	0.002
1,1-Dichloroethene	ESE	LM28	0.002
1,1,1-Trichloroethane	ESE	LM28	0.002
1,1,2-Trichloroethane	ESE	LM28	0.002
1,1,2,2-Tetrachloroethane	ESE	LM28	0.002
1,2-Dichloroethane	ESE	LM28	0.002
1,2-Dichloropropane	ESE	LM28	0.002
trans-1,2-Dichloroethene	ESE	LM28	0.013
cis-1,3-Dichloropropene	ESE	LM28	0.002
trans-1,3-Dichloropropene	ESE	LM28	0.013
2-Hexanone (Methyl-n-butyl ketone)	ESE	LM28	0.022
4-Methyl-2-pentanone (MIBK)	ESE	LM28	0.005
Acetone	ESE	LM28	0.046

Table 3.3-6 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Supplemental RI (page 2 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/g)
VOLATILE ORGANICS (Continued)			
Benzene	ESE	LM28	0.002
Bromodichloromethane	ESE	LM28	0.004
Bromoform	ESE	LM28	0.009
Bromomethane	ESE	LM28	0.017
Carbon disulfide	ESE	LM28	0.019
Carbon tetrachloride	ESE	LM28	0.003
Chlorobenzene	ESE	LM28	0.002
Chloroethane	ESE	LM28	0.017
Chloroform	ESE	LM28	0.002
Chloromethane	ESE	LM28	0.004
Dibromochloromethane	ESE	LM28	0.005
Ethylbenzene	ESE	LM28	0.002
Methylene chloride	ESE	LM28	0.040
Methylethyl ketone (3-Butanone)	ESE	LM28	0.005
Styrene	ESE	LM28	0.002
Tetrachloroethene	ESE	LM28	0.002
Toluene	ESE	LM28	0.002
Trichloroethene	ESE	LM28	0.002
Trichlorofluoromethane	ESE	LM28	0.002
Vinyl chloride (Chloroethene)	ESE	LM28	0.002
Vinyl ester	ESE	LM28	0.007
Xylenes	ESE	LM28	0.002
SEMIVOLATILE ORGANICS			
1,2-Dichlorobenzene	ESE	LM27	0.033
1,2,4-Trichlorobenzene	ESE	LM27	0.033
1,3-Dichlorobenzene	ESE	LM27	0.120
1,4-Dichlorobenzene	ESE	LM27	0.033
2-Chloronaphthalene	ESE	LM27	0.140
2-Chlorophenol	ESE	LM27	0.110
2-Methylnaphthalene	ESE	LM27	0.033
2-Methylphenol	ESE	LM27	0.350
2-Nitroaniline	ESE	LM27	0.079
2-Nitrophenol	ESE	LM27	0.069
2,4-Dichlorophenol	ESE	LM27	0.140
2,4-Dimethylphenol	ESE	LM27	2.600
2,4-Dinitrophenol	ESE	LM27	0.700
2,4-Dinitrotoluene	ESE	LM27	0.370
2,4,5-Trichlorophenol	ESE	LM27	0.086

Table 3.3-6 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Supplemental RI (page 3 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/g)
SEMIVOLATILE ORGANICS (Continued)			
2,4,6-Trichlorophenol	ESE	LM27	0.082
2,6-Dinitrotoluene	ESE	LM27	0.066
3-Nitroaniline	ESE	LM27	0.950
3,3'-Dichlorobenzidine	ESE	LM27	3.400
4-Bromophenyl-phenylether	ESE	LM27	0.033
4-Chloro-3-cresol	ESE	LM27	0.073
4-Chloroaniline	ESE	LM27	1.600
4-Chlorophenyl-phenylether	ESE	LM27	0.044
4-Methylphenol	ESE	LM27	0.300
4-Nitroaniline	ESE	LM27	1.200
4-Nitrophenol	ESE	LM27	0.860
9H-Carbazole	ESE	LM27	0.170
Acenaphthene	ESE	LM27	0.033
Acenaphthylene	ESE	LM27	0.033
Anthracene	ESE	LM27	0.033
Benzo(a)anthracene	ESE	LM27	0.033
Benzo(a)pyrene	ESE	LM27	0.033
Benzo(b)fluoranthene	ESE	LM27	0.033
Benzo(g,h,i)perylene	ESE	LM27	0.250
Benzo(k)fluoranthene	ESE	LM27	0.033
Benzoic acid	ESE	LM27	0.730
Benzyl alcohol	ESE	LM27	0.089
Bis(2-chloroethoxy)methane	ESE	LM27	0.033
Bis(2-chloroethyl)ether	ESE	LM27	0.080
Bis(2-chloroisopropyl)ether	ESE	LM27	0.033
Bis(2-ethylhexyl)phthalate	ESE	LM27	0.390
Butylbenzylphthalate	ESE	LM27	0.033
Chrysene	ESE	LM27	0.220
Di-n-butylphthalate	ESE	LM27	0.920
Di-n-octylphthalate	ESE	LM27	0.260
Dibenz(a,h)anthracene	ESE	LM27	0.033
Dibenzofuran	ESE	LM27	0.033
Diethylphthalate	ESE	LM27	0.190
Dimethylphthalate	ESE	LM27	0.130
Fluoranthene	ESE	LM27	0.085
Fluorene	ESE	LM27	0.033
Hexachlorobenzene	ESE	LM27	0.046
Hexachlorobutadiene	ESE	LM27	0.180
Hexachlorocyclopentadiene	ESE	LM27	1.700
Hexachloroethane	ESE	LM27	0.067

Table 3.3-6 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Supplemental RI (page 4 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/g)
SEMIVOLATILE ORGANICS (Continued)			
Indeno(1,2,3-c,d)pyrene	ESE	LM27	0.033
Isophorone	ESE	LM27	0.033
N-Nitroso-di-n-propylamine	ESE	LM27	0.071
N-Nitrosodiphenylamine	ESE	LM27	0.038
Naphthalene	ESE	LM27	0.033
Nitrobenzene	ESE	LM27	0.071
Pentachlorophenol	ESE	LM27	0.200
Phenanthrene	ESE	LM27	0.033
Phenol	ESE	LM27	0.110
Pyrene	ESE	LM27	0.033
ORGANOCHLORINE PESTICIDES			
Aldrin	C&T	8080	0.003
alpha-BHC	C&T	8080	0.003
beta-BHC	C&T	8080	0.003
delta-BHC	C&T	8080	0.003
gamma-BHC (Lindane)	C&T	8080	0.003
Chlordane	C&T	8080	0.030
Dieldrin	C&T	8080	0.006
Endrin	C&T	8080	0.006
Endrin aldehyde	C&T	8080	0.006
Endosulfan I	C&T	8080	0.003
Endosulfan II	C&T	8080	0.006
Heptachlor	C&T	8080	0.003
Heptachlor expoxide	C&T	8080	0.003
Methoxychlor	C&T	8080	0.030
p,p'-DDD	C&T	8080	0.006
p,p'-DDE	C&T	8080	0.006
p,p'-DDT	C&T	8080	0.006
Toxaphene	C&T	8080	0.060
POLYCHLORINATED BIPHENYLS			
PCB-1016	ESE	LH16	0.067
PCB-1221	ESE	LH16	0.082
PCB-1232	ESE	LH16	0.082
PCB-1242	ESE	LH16	0.082
PCB-1248	ESE	LH16	0.082
PCB-1254	ESE	LH16	0.082
PCB-1260	ESE	LH16	0.080

Table 3.3-6 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Supplemental RI (page 5 of 5)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/g)
CHLORINATED HERBICIDES			
2,4,5-T	C&T	815S	0.100
2,4-D	C&T	815S	1.000
2,4-DB	C&T	815S	1.000
2,4,5-TP (Silvex)	C&T	815S	0.100
Bentazon	C&T	815S	1.000
Dicamba	C&T	815S	1.000
Dalapon	C&T	815S	1.000
Dichloroprop	C&T	815S	1.000
Dinoseb	C&T	815S	0.200
MCPA	C&T	815S	100.000
MCPP	C&T	815S	100.000
TOTAL PETROLEUM HYDROCARBONS			
TPH - diesel fraction	C&T	8015-M	1.000
TPH - gas fraction	C&T	8015-M	1.000

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

µg/g = micrograms per gram
ESE = Environmental Science and Engineering, Inc.
C&T = Curtis and Tompkins, Inc.

1 = USAEC approved methods begin with a letter. Methods of analysis and similar EPA methods are as follows: HG9/CVAA-7470, JD15/GFAA-7740, JD17/GFAA-7421, JD19/GFAA-7060, JS13/ICP-6010, KY01/technicon-9012, LH16/GCEC-8080, LM27/GCMS-8270, LM28/GCMS-8240.

Table 3.3-7 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Supplemental RI (page 1 of 6)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/L)
INORGANICS			
Aluminum	ESE	SS10	141.000
Antimony	ESE	SS10	38.000
Arsenic	ESE	SD22	2.540
Barium	ESE	SS10	3.0
Beryllium	ESE	SS10	5.000
Cadmium	ESE	SS10	4.010
Calcium	ESE	SS10	50.0
Chromium	ESE	SS10	6.020
Cobalt	ESE	SS10	25.000
Copper	ESE	SS10	8.090
Cyanide	ESE	CN1	8.900
Iron	ESE	SS10	38.800
Lead	ESE	SD20	1.260
Magnesium	ESE	SS10	89.2
Manganese	ESE	SS10	2.750
Mercury	ESE	WW8	0.500
Nickel	ESE	SS10	34.300
Potassium	ESE	SS10	375.000
Selenium	ESE	SD21	3.020
Silver	ESE	SS10	4.600
Sodium	ESE	SS10	251
Thallium	ESE	SS10	81.400
	ESE	SD09	6.990
Vanadium	ESE	SS10	11.000
Zinc	ESE	SS10	21.100
MISCELLANEOUS PARAMETERS			
Alkalinity	ESE	00	10000
Alkalinity, bicarbonate	ESE	00	10000
Alkalinity, carbonate	ESE	00	2500.000
Alkalinity, hydroxide	ESE	00	15.000
Chloride	ESE	NN8	5000
Fluoride	ESE	NN8	1000.000
Nitrite, nitrate-non-specific	ESE	TF22	10.000
Sulfate	ESE	NN8	5000.000
Total Dissolved Solids	ESE	00	*

Table 3.3-7 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Supplemental RI (page 2 of 6)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/L)
VOLATILE ORGANICS			
1,1-Dichloroethane	ESE	UM27	2.000
1,1-Dichloroethene	C&T	524	0.160
1,1,1-Trichloroethane	ESE	UM27	3.600
1,1,2-Trichloro-1,2,2-trifluoroethane	C&T	524	0.500
1,1,2-Trichloroethane	ESE	UM27	2.000
1,1,2,2-Tetrachloroethane	ESE	UM27	2.000
1,2-Dichloroethane	C&T	524	0.130
1,2-Dichloropropane	ESE	UM27	2.000
1,2-Dibromo-3-chloropropane	C&T	504	0.010
cis-1,2-Dichloroethene	C&T	524	0.160
trans-1,2-Dichloroethene	C&T	524	0.160
cis-1,3-Dichloropropene	C&T	524	0.070
trans-1,3-Dichloropropene	C&T	524	0.100
2-Hexanone (Methyl-n-butyl ketone)	ESE	UM27	4.800
4-Methyl-2-pentanone (MIBK)	ESE	UM27	2.000
Acetone	ESE	UM27	17.000
Benzene	C&T	524	0.060
	ESE	UM27	2.800
Bromodichloromethane	ESE	UM27	2.000
Bromoform	ESE	UM27	2.000
Bromomethane	ESE	UM27	36.000
Carbon disulfide	ESE	UM27	16.000
Carbon tetrachloride	C&T	524	0.070
	ESE	UM27	4.400
Chlorobenzene	ESE	UM27	2.000
Chloroethane	ESE	UM27	8.000
Chloroform	ESE	UM27	2.000
Chloromethane	ESE	UM27	9.000
Dibromochloromethane	ESE	UM27	2.000
Ethylbenzene	ESE	UM27	2.000
Ethylene dibromide (1,2-Dibromomethane)	C&T	504	0.020
Methylene chloride	ESE	UM27	19.000
Methylethyl ketone (2-Butanone)	ESE	UM27	6.200
Styrene	ESE	UM27	2.000
Tetrachloroethene	ESE	UM27	2.000
Toluene	ESE	UM27	2.000
Trichloroethene	ESE	UM27	2.200
Trichlorofluoromethane	ESE	UM27	11.000
Vinyl chloride (Chloroethene)	C&T	524	0.160

Table 3.3-7 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Supplemental RI (page 3 of 6)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/L)
VOLATILE ORGANICS (Continued)			
Vinyl ester	ESE	UM27	2.000
Xylenes	ESE	UM27	11.000
SEMIVOLATILE ORGANICS			
1,2,4-Trichlorobenzene	ESE	UM28	1.400
1,2-Dichlorobenzene	ESE	UM28	1.000
1,3-Dichlorobenzene	ESE	UM28	1.100
1,4-Dichlorobenzene	ESE	UM28	1.000
2-Chloronaphthalene	ESE	UM28	1.600
2-Chlorophenol	ESE	UM28	2.400
2-Methylnaphthalene	ESE	UM28	1.900
2-Methylphenol	ESE	UM28	3.900
2-Nitroaniline	ESE	UM28	9.600
2-Nitrophenol	ESE	UM28	6.700
2,4-Dichlorophenol	ESE	UM28	5.800
2,4-Dimethylphenol	ESE	UM28	4.600
2,4-Dinitrophenol	ESE	UM28	33.000
2,4-Dinitrotoluene	ESE	UM28	9.700
2,4,5-Trichlorophenol	ESE	UM28	4.600
2,4,6-Trichlorophenol	ESE	UM28	4.800
2,6-Dinitrotoluene	ESE	UM28	5.000
3-Nitroaniline	ESE	UM28	30.000
3,3'-Dichlorobenzidine	ESE	UM28	32.000
4-Bromophenyl-phenylether	ESE	UM28	1.400
4-Chloro-3-cresol	ESE	UM28	7.000
4-Chloroaniline	ESE	UM28	17.000
4-Chlorophenyl-phenylether	ESE	UM28	4.000
4-Methylphenol	ESE	UM28	6.100
4-Nitroaniline	ESE	UM28	40.000
4-Nitrophenol	ESE	UM28	44.000
4,6-Dinitro-2-cresol	ESE	UM28	14.000
9H-Carbazole	ESE	UM28	5.000
Acenaphthene	ESE	UM28	3.400
Acenaphthylene	ESE	UM28	1.100
Anthracene	ESE	UM28	1.000
Benzo(a)anthracene	ESE	UM28	5.800
Benzo(a)pyrene	ESE	UM28	1.200
Benzo(b)fluoranthene	ESE	UM28	1.300
Benzo(g,h,i)perylene	ESE	UM28	1.100

Table 3.3-7 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Supplemental RI (page 4 of 6)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/L)
SEMIVOLATILE ORGANICS (Continued)			
Benzo(k)fluoranthene	ESE	UM28	2.300
Benzoic acid	ESE	UM28	24.000
Benzyl alcohol	ESE	UM28	12.000
Bis(2-chloroethoxy)methane	ESE	UM28	3.800
Bis(2-chloroethyl)ether	ESE	UM28	1.800
Bis(2-chloroisopropyl)ether	ESE	UM28	1.300
Bis(2-ethylhexyl)phthalate	ESE	UM28	1.000
Butylbenzylphthalate	ESE	UM28	1.100
Chrysene	ESE	UM28	2.500
Di-n-butyl-phthalate	ESE	UM28	4.900
Di-n-octylphthalate	ESE	UM28	8.000
Dibenz(a,h)anthracene	ESE	UM28	2.000
Dibenzofuran	ESE	UM28	2.600
Diethylphthalate	ESE	UM28	2.200
Dimethylphthalate	ESE	UM28	5.100
Fluoranthene	ESE	UM28	1.000
Fluorene	ESE	UM28	1.300
Hexachlorobenzene	ESE	UM28	1.000
Hexachlorobutadiene	ESE	UM28	1.000
Hexachlorocyclopentadiene	ESE	UM28	7.600
Hexachloroethane	ESE	UM28	1.200
Indeno(1,2,3-c,d)pyrene	ESE	UM28	4.400
Isophorone	ESE	UM28	1.100
N-Nitroso-di-n-propylamine	ESE	UM28	3.200
N-Nitrosodiphenylamine	ESE	UM28	5.900
Naphthalene	ESE	UM28	3.800
Nitrobenzene	ESE	UM28	2.900
Pentachlorophenol	ESE	UM28	12.000
Phenanthrene	ESE	UM28	1.000
Phenol	ESE	UM28	6.200
Pyrene	ESE	UM28	1.000
ORGANOCHLORINE PESTICIDES			
Aldrin	C&T	8080	0.050
alpha-BHC	C&T	8080	0.050
beta-BHC	C&T	8080	0.050
delta-BHC	C&T	8080	0.050
gamma-BHC (Lindane)	C&T	8080	0.050
Chlordane	C&T	8080	0.500

Table 3.3-7 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Supplemental RI (page 5 of 6)

Analyte	Laboratory	Method[1]	Reporting Limit (µg/L)
ORGANOCHLORINE PESTICIDES (Continued)			
Dieldrin	C&T	8080	0.100
Endosulfan I	C&T	8080	0.050
Endosulfan II	C&T	8080	0.100
Endosulfan sulfate	C&T	8080	0.100
Endrin	C&T	8080	0.100
Endrin aldehyde	C&T	8080	0.100
Heptachlor	C&T	8080	0.050
Heptachlor expoxide	C&T	8080	0.050
Methoxychlor	C&T	8080	0.500
p,p'-DDD	C&T	8080	0.100
p,p'-DDE	C&T	8080	0.100
p,p'-DDT	C&T	8080	0.100
Toxaphene	C&T	8080	1.000
POLYCHLORINATED BIPHENYLS			
PCB-1016	ESE	UH02	0.160
PCB-1221	ESE	UH02	0.160
PCB-1232	ESE	UH02	0.160
PCB-1242	ESE	UH02	0.190
PCB-1248	ESE	UH02	0.190
PCB-1254	ESE	UH02	0.190
PCB-1260	ESE	UH02	0.190
CHLORINATED HERBICIDES			
2,4,5-T	C&T	8150	1.000
2,4-D	C&T	8150	1.000
2,4-DB	C&T	8150	1.000
2,4,5-TP (Silvex)	C&T	8150	1.000
Bentazon	C&T	8150	1.000
Dicamba	C&T	8150	1.000
Dalapon	C&T	8150	5.000
Dichloroprop	C&T	8150	1.000
Dinoseb	C&T	8150	1.000
MCPA	C&T	8150	250.000
MCPP	C&T	8150	250.000

Table 3.3-7 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Supplemental RI (page 6 of 6)

Analyte	Laboratory	Method[1]	Reporting Limit (μg/L)
TOTAL PETROLEUM HYDROCARBONS			
TPH-diesel fraction	C&T	8015-M	50.000
TPH-gas fraction	C&T	8015-M	50.000

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

μg/L = micrograms per liter
ESE = Environmental Science and Engineering, Inc.
C&T = Curtis and Tompkins, Inc.

1 = USAEC approved methods begin with a letter. Methods of analysis and similar EPA methods are as follows: CN1/colorimetric-9012, NN8/ionchromatography-300, SD09/GFAA-7841, SD20/GFAA-7421, SD21/GFAA-7740, SD22/GFAA-7060, SS10/ICP-6010, TF22/technicon-353.2, UH02/GCEC-8080, UM27/GCMS-8240, UM28/GCMS-8720, WW8/CVAA-7470. USAEC non-approved methods are 00 and 99. EPA methods used are as follows: Alkalinity/310.1, TDS/160.1

* Analyte detected above reporting limit in all samples.

Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 1 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/g)
INORGANICS			
Aluminum	ED	6010	*
Aluminum	QA	6010	*
Aluminum	SU	6010	*
Antimony	ED	7041	0.4
Antimony	QA	7041	0.100
Antimony	SU	7041	0.49
Antimony	SU	XRF	25
Arsenic	ED	7060	0.5
Arsenic	QA	7060	0.250
Arsenic	SU	7060	0.5
Barium	ED	6010	*
Barium	QA	6010	*
Barium	SU	6010	*
Beryllium	ED	6010	*
Beryllium	QA	6010	0.100
Beryllium	SU	6010	0.1
Cadmium	ED	6010	0.5
Cadmium	QA	6010	0.800
Cadmium	SU	6010	0.1
Calcium	ED	6010	*
Calcium	QA	6010	*
Calcium	SU	6010	*
Chromium	ED	6010	*
Chromium	QA	6010	*
Chromium	SU	6010	*
Cobalt	ED	6010	*
Cobalt	QA	6010	*
Cobalt	SU	6010	*
Copper	ED	6010	*
Copper	QA	6010	*
Copper	SU	6010	*
Cyanide	ED	9010	0.4
Cyanide	QA	9010	0.250
Cyanide	SU	9010	1
Iron	ED	6010	*
Iron	QA	6010	*
Iron	SU	6010	*
Lead	ED	7421	0.3
Lead	QA	6010	*
Lead	SU	7421	0.47
Lead	SU	XRF	25
Magnesium	ED	6010	*
Magnesium	QA	6010	*

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

µg/g = micrograms per gram

* = Analyte always detected above reporting limit.

1 = Except for XRF and CDHS (California Department of Health Services)

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 2 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/g)
INORGANICS (continued)			
Magnesium	SU	6010	*
Manganese	ED	6010	*
Manganese	QA	6010	*
Manganese	SU	6010	*
Mercury	ED	7471	0.01
Mercury	QA	7471	0.0590
Mercury	SU	7471	0.05
Nickel	ED	6010	*
Nickel	QA	6010	*
Nickel	SU	6010	*
Potassium	ED	6010	100
Potassium	QA	6010	50.0
Potassium	SU	6010	10
Selenium	ED	7740	0.5
Selenium	QA	7740	0.416
Selenium	SU	7740	0.5
Silver	ED	6010	0.01
Silver	QA	6010	0.400
Silver	SU	6010	0.5
Sodium	ED	6010	20
Sodium	QA	6010	50.0
Sodium	SU	6010	2.0
Thallium	ED	7841	0.2
Thallium	QA	7841	0.162
Thallium	SU	7841	0.5
Vanadium	ED	6010	*
Vanadium	QA	6010	*
Vanadium	SU	6010	*
Zinc	ED	6010	2.0
Zinc	QA	6010	0.4
Zinc	SU	6010	*
Zinc	SU	XRF	36
MISCELLANEOUS PARAMETERS			
Organic Lead	SU	CDHS	1.4
Total Organic Carbon	QA	4151	*
VOLATILE ORGANICS			
1,1,1-Trichloroethane	QA	8240	0.0050
1,1,1-Trichloroethane	SU	8260	0.0094
1,1,2,2-Tetrachloroethane	QA	8240	0.0022
1,1,2,2-Tetrachloroethane	SU	8260	0.0094

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

µg/g = micrograms per gram

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 3 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/g)
VOLATILE ORGANICS (continued)			
1,1,2-Trichloro-1,2,2-trifluoroethane	QA	8240	0.0050
1,1,2-Trichloro-1,2,2-trifluoroethane	SU	8260	0.0094
1,1,2-Trichloroethane	QA	8240	0.0020
1,1,2-Trichloroethane	SU	8260	0.0094
1,2-Dibromo-3-chloropropane (DBCP)	QA	8240	0.0050
1,2-Dibromo-3-chloropropane (DBCP)	SU	8260	0.019
1,2-Dichloropropane	QA	8240	0.0023
1,2-Dichloropropane	SU	8260	0.0094
2-Hexanone (Methyl-n-butyl ketone)	QA	8240	0.0023
2-Hexanone (Methyl-n-butyl ketone)	SU	8260	0.031
4-Methyl-2-pentanone (MIBK)	QA	8240	0.0032
4-Methyl-2-pentanone (MIBK)	SU	8260	0.031
Acetone	QA	8240	0.0072
Acetone	SU	8260	0.063
Benzene	QA	8240	0.0021
Benzene	SU	8260	0.0031
Bromodichloromethane	QA	8240	0.0026
Bromodichloromethane	SU	8260	0.0094
Bromoform	QA	8240	0.0016
Bromoform	SU	8260	0.0094
Bromomethane	QA	8240	0.0030
Bromomethane	SU	8260	0.031
Carbon disulfide	QA	8240	0.0026
Carbon disulfide	SU	8260	0.0094
Carbon tetrachloride	QA	8240	0.0024
Carbon tetrachloride	SU	8260	0.0094
Chlorobenzene	QA	8240	0.0024
Chlorobenzene	SU	8260	0.0094
Chloroethane	QA	8240	0.0076
Chloroethane	SU	8260	0.031
Chloroform	QA	8240	0.0036
Chloroform	SU	8260	0.0094
Chloromethane	QA	8240	0.0087
Chloromethane	SU	8260	0.031
cis-1,3-Dichloropropene	QA	8240	0.0012
cis-1,3-Dichloropropene	SU	8260	0.0094
Dibromochloromethane	QA	8240	0.0020
Dibromochloromethane	SU	8260	0.0094
Ethylbenzene	QA	8240	0.0026
Ethylbenzene	SU	8260	0.0094
Ethylene dibromide (1,2-Dibromoethane)	QA	8240	0.0050
Ethylene dibromide (1,2-Dibromoethane)	SU	8260	0.0094
Methylene chloride (Dichloromethane)	QA	8240	0.0024

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 4 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/g)
VOLATILE ORGANICS (continued)			
Methylene chloride (Dichloromethane)	SU	8260	0.031
Methylethyl ketone (2-Butanone)	QA	8240	0.0038
Methylethyl ketone (2-Butanone)	SU	8260	0.063
Styrene	QA	8240	0.0016
Styrene	SU	8260	0.0094
Tetrachloroethene	QA	8240	0.0033
Tetrachloroethene	SU	8260	0.0094
Toluene	QA	8240	0.0030
Toluene	SU	8260	0.0094
trans-1,3-Dichloropropene	QA	8240	0.0012
trans-1,3-Dichloropropene	SU	8260	0.0094
Trichlorofluoromethane	QA	8240	0.0040
Trichlorofluoromethane	SU	8010	0.01
Trichlorofluoromethane	SU	8260	0.0094
Vinyl ester (Vinyl acetate)	QA	8240	0.0037
Vinyl ester (Vinyl acetate)	SU	8260	0.031
Xylenes (Total)	QA	8240	0.0080
Xylenes (Total)	SU	8260	0.0094
1,1-Dichloroethane	QA	8240	0.0023
1,1-Dichloroethane	SU	8010	0.005
1,1-Dichloroethane	SU	8260	0.0094
1,1-Dichloroethene	QA	8240	0.0042
1,1-Dichloroethene	SU	8010	0.005
1,1-Dichloroethene	SU	8260	0.0094
1,2-Dichloroethane	QA	8240	0.0042
1,2-Dichloroethane	SU	8010	0.005
1,2-Dichloroethane	SU	8260	0.0031
cis-1,2-Dichloroethene	QA	8240	0.0050
cis-1,2-Dichloroethene	SU	8010	0.005
cis-1,2-Dichloroethene	SU	8260	0.0094
trans-1,2-Dichloroethene	QA	8240	0.0021
trans-1,2-Dichloroethene	SU	8010	0.005
trans-1,2-Dichloroethene	SU	8260	0.0094
Trichloroethene	QA	8240	0.0038
Trichloroethene	SU	8010	0.005
Trichloroethene	SU	8260	0.0094
Vinyl chloride (Chloroethene)	QA	8240	0.0047
Vinyl chloride (Chloroethene)	SU	8010	0.005
Vinyl chloride (Chloroethene)	SU	8260	0.031

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

µg/g = micrograms per gram

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 5 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/g)
SEMIVOLATILE ORGANICS			
1,2,4-Trichlorobenzene	QA	8270	0.0475
1,2,4-Trichlorobenzene	SU	8270	0.3
1,2-Dichlorobenzene	QA	8270	0.0475
1,2-Dichlorobenzene	SU	8270	0.3
1,3-Dichlorobenzene	QA	8270	0.0475
1,3-Dichlorobenzene	SU	8270	0.3
1,4-Dichlorobenzene	QA	8270	0.110
1,4-Dichlorobenzene	SU	8270	0.3
2,4,5-Trichlorophenol	QA	8270	0.250
2,4,5-Trichlorophenol	SU	8270	0.3
2,4,6-Trichlorophenol	QA	8270	0.0675
2,4,6-Trichlorophenol	SU	8270	0.3
2,4-Dichlorophenol	QA	8270	0.0675
2,4-Dichlorophenol	SU	8270	0.3
2,4-Dimethylphenol	QA	8270	0.0675
2,4-Dimethylphenol	SU	8270	0.3
2,4-Dinitrophenol	QA	8270	1.05
2,4-Dinitrophenol	SU	8270	0.3
2,4-Dinitrotoluene	QA	8270	0.143
2,4-Dinitrotoluene	SU	8270	0.3
2,6-Dinitrotoluene	QA	8270	0.0475
2,6-Dinitrotoluene	SU	8270	0.3
2-Chloronaphthalene	QA	8270	0.0475
2-Chloronaphthalene	SU	8270	0.3
2-Chlorophenol	QA	8270	0.0825
2-Chlorophenol	SU	8270	0.3
2-Methylnaphthalene	QA	8270	0.250
2-Methylnaphthalene	SU	8270	0.3
2-Methylphenol	QA	8270	0.250
2-Methylphenol	SU	8270	0.3
2-Nitroaniline	QA	8270	0.250
2-Nitroaniline	SU	8270	0.3
2-Nitrophenol	QA	8270	0.0900
2-Nitrophenol	SU	8270	0.3
3,3'-Dichlorobenzidine	QA	8270	0.413
3,3'-Dichlorobenzidine	SU	8270	0.3
3-Nitroaniline	QA	8270	0.250
3-Nitroaniline	SU	8270	0.3
4,6-Dinitro-2-cresol	QA	8270	0.0650
4,6-Dinitro-2-cresol	SU	8270	0.3
4-Bromophenyl-phenylether	QA	8270	0.0475
4-Bromophenyl-phenylether	SU	8270	0.3
4-Chloro-3-cresol	QA	8270	0.0750

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

μg/g = micrograms per gram

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 6 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/g)
SEMIVOLATILE ORGANICS (continued)			
4-Chloro-3-cresol	SU	8270	0.3
4-Chloroaniline	QA	8270	0.250
4-Chloroaniline	SU	8270	0.3
4-Chlorophenyl-phenylether	QA	8270	0.105
4-Chlorophenyl-phenylether	SU	8270	0.3
4-Methylphenol	QA	8270	0.250
4-Methylphenol	SU	8270	0.3
4-Nitroaniline	QA	8270	0.250
4-Nitroaniline	SU	8270	0.3
4-Nitrophenol	QA	8270	0.0600
4-Nitrophenol	SU	8270	0.3
9H-Carbazole	QA	8270	0.330
9H-Carbazole	SU	8270	0.3
alpha-Pinene	SU	8270	0.3
Benzoic acid	QA	8270	1.25
Benzoic acid	SU	8270	0.3
Benzyl alcohol	QA	8270	0.500
Benzyl alcohol	SU	8270	0.3
Bis(2-chloroethoxy) methane	QA	8270	0.133
Bis(2-chloroethoxy) methane	SU	8270	0.3
Bis(2-chloroethyl) ether	QA	8270	0.143
Bis(2-chloroethyl) ether	SU	8270	0.3
Bis(2-chloroisopropyl) ether	QA	8270	0.143
Bis(2-chloroisopropyl) ether	SU	8270	0.3
Bis(2-ethylhexyl) phthalate	QA	8270	0.0625
Bis(2-ethylhexyl) phthalate	SU	8270	0.3
Butylbenzylphthalate	QA	8270	0.0625
Butylbenzylphthalate	SU	8270	0.3
Di-n-butylphthalate	QA	8270	0.0625
Di-n-butylphthalate	SU	8270	0.3
Di-n-octylphthalate	QA	8270	0.0625
Di-n-octylphthalate	SU	8270	0.3
Dibenzofuran	QA	8270	0.0250
Dibenzofuran	SU	8270	0.3
Diethylphthalate	QA	8270	0.0475
Diethylphthalate	SU	8270	0.3
Dimethylphthalate	QA	8270	0.0400
Dimethylphthalate	SU	8270	0.3
Hexachlorobenzene	QA	8270	0.0475
Hexachlorobenzene	SU	8270	0.3
Hexachlorobutadiene	QA	8270	0.0225
Hexachlorobutadiene	SU	8270	0.3
Hexachlorocyclopentadiene	QA	8270	0.250

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 7 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/g)
SEMIVOLATILE ORGANICS (continued)			
Hexachlorocyclopentadiene	SU	8270	0.3
Hexachloroethane	QA	8270	0.0400
Hexachloroethane	SU	8270	0.3
Isophorone	QA	8270	0.0550
Isophorone	SU	8270	0.3
N-Nitroso-di-n-propylamine	QA	8270	0.250
N-Nitroso-di-n-propylamine	SU	8270	0.3
N-Nitrosodiphenylamine	QA	8270	0.0475
N-Nitrosodiphenylamine	SU	8270	0.3
Nitrobenzene	QA	8270	0.0475
Nitrobenzene	SU	8270	0.3
Pentachlorophenol	QA	8270	0.0900
Pentachlorophenol	SU	8270	0.3
Phenol	QA	8270	0.0375
Phenol	SU	8270	0.3
Acenaphthene	QA	8270	0.0475
Acenaphthene	SU	8270	0.3
Acenaphthylene	QA	8270	0.0875
Acenaphthylene	SU	8270	0.3
Anthracene	QA	8270	0.0475
Anthracene	SU	8270	0.3
Benzo(a)anthracene	QA	8270	0.195
Benzo(a)anthracene	SU	8270	0.3
Benzo(a)pyrene	QA	8270	0.0625
Benzo(a)pyrene	SU	8270	0.3
Benzo(b,k)fluoranthene	QA	8270	0.120
Benzo(b,k)fluoranthene	SU	8270	0.3
Benzo(g,h,i)perylene	QA	8270	0.102
Benzo(g,h,i)perylene	SU	8270	0.3
Benzo(k)fluoranthene	QA	8270	0.0625
Chrysene	QA	8270	0.0625
Chrysene	SU	8270	0.3
Dibenz(a,h)anthracene	QA	8270	0.0625
Dibenz(a,h)anthracene	SU	8270	0.3
Fluoranthene	QA	8270	0.0550
Fluoranthene	SU	8270	0.3
Fluorene	QA	8270	0.0475
Fluorene	SU	8270	0.3
Indeno(1,2,3-cd)pyrene	QA	8270	0.0925
Indeno(1,2,3-cd)pyrene	SU	8270	0.3
Naphthalene	QA	8270	0.0400
Naphthalene	SU	8270	0.3
Phenanthrene	QA	8270	0.135

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

μg/g = micrograms per gram

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 8 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/g)
SEMIVOLATILE ORGANICS (continued)			
Phenanthrene	SU	8270	0.3
Pyrene	QA	8270	0.0475
Pyrene	SU	8270	0.3
ORGANOCHLORINE PESTICIDES			
Aldrin	ED	8080	0.00967
Aldrin	QA	8080	0.0002
Aldrin	SU	8080	0.005
alpha-BHC	ED	8080	0.00467
alpha-BHC	QA	8080	0.0006
alpha-BHC	SU	8080	0.005
alpha-Chlordane	ED	8080	0.00967
beta-BHC	ED	8080	0.00967
beta-BHC	QA	8080	0.0005
beta-BHC	SU	8080	0.0027
Chlordane	QA	8080	0.0033
Chlordane	SU	8080	0.01
delta-BHC	ED	8080	0.00967
delta-BHC	QA	8080	0.0005
delta-BHC	SU	8080	0.0046
Dieldrin	ED	8080	0.00967
Dieldrin	QA	8080	0.0001/0.0063
Dieldrin	SU	8080	0.005
Endosulfan I	ED	8080	0.00967
Endosulfan II	ED	8080	0.0197
Endosulfan II	QA	8080	0.0004
Endosulfan II	SU	8080	0.005
Endosulfan I	QA	8080	0.0003
Endosulfan I	SU	8080	0.005
Endosulfan sulfate	ED	8080	0.0197
Endosulfan sulfate	QA	8080	0.0003
Endosulfan sulfate	SU	8080	0.005
Endrin aldehyde	ED	8080	0.00967
Endrin aldehyde	QA	8080	0.0004
Endrin aldehyde	SU	8080	0.005
Endrin ketone	QA	8080	0.0002
Endrin ketone	SU	8080	0.005
Endrin	ED	8080	0.00967
Endrin	QA	8080	0.0003
Endrin	SU	8080	0.005
gamma-BHC (Lindane)	ED	8080	0.00467
gamma-BHC (Lindane)	QA	8080	0.0003
gamma-BHC (Lindane)	SU	8080	0.005

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 9 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/g)
ORGANOCHLORINE PESTICIDES	(continued)		
gamma-Chlordane	ED	8080	0.00967
Heptachlor epoxide	ED	8080	0.00967
Heptachlor epoxide	QA	8080	0.0002
Heptachlor epoxide	SU	8080	0.005
Heptachlor	ED	8080	0.00967
Heptachlor	QA	8080	0.0001
Heptachlor	SU	8080	0.005
Methoxychlor	ED	8080	0.033
Methoxychlor	QA	8080	0.0250
Methoxychlor	SU	8080	0.005
ppDDD	ED	8080	0.0197
ppDDD	QA	8080	0.0050
ppDDD	SU	8080	0.005
ppDDE	ED	8080	0.00967
ppDDE	QA	8080	0.0004/0.0076
ppDDE	SU	8080	0.005
ppDDT	ED	8080	0.0197
ppDDT	QA	8080	0.0003/0.0071
ppDDT	SU	8080	0.005
Toxaphene	ED	8080	0.2
Toxaphene	QA	8080	0.0250
Toxaphene	SU	8080	0.097
POLYCHLORINATED BIPHENYLS			
PCB-1016	SU	8080	0.0029
PCB-1221	SU	8080	0.0029
PCB-1232	SU	8080	0.0029
PCB-1242	SU	8080	0.0029
PCB-1248	SU	8080	0.0029
PCB-1254	SU	8080	0.0029
PCB-1260	SU	8080	0.0029
CHLORINATED HERBICIDES			
2,4,5-T	ED	8150	0.002
2,4,5-TP (Silvex)	ED	8150	0.002
2,4,5-TP (Silvex)	QA	8150	0.0003
2,4,5-T	QA	8150	0.0003
2,4-DB	ED	8150	0.006
2,4-DB	QA	8150	0.0007
2,4-D	ED	8150	0.006
2,4-D	QA	8150	0.0002
Dalapon	ED	8150	0.004

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-8 Target Analyte List, Analytical Methods, and Reporting Limits for Soil Samples, Follow-on RI (page 10 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/g)
CHLORINATED HERBICIDES (continued)			
Dalapon	QA	8150	0.0002
Dicamba	ED	8150	0.002
Dicamba	QA	8150	0.0002
Dichloroprop	ED	8150	0.006
Dichloroprop	QA	8150	0.0003
Dinoseb	ED	8150	0.002
Dinoseb	QA	8150	0.0004
MCPA	ED	8150	1
MCPA	QA	8150	0.0182
MCPP	ED	8150	1
MCPP	QA	8150	0.0196
TOTAL PETROLEUM HYDROCARBONS			
TPH (immunoassay)	SU	4030	9.6
TPH-diesel fraction	QA	8015	3.12
TPH-diesel fraction	SU	8015	9.6
TPH-gas fraction	QA	8015	0.421
TPH-gas fraction	SU	8015	0.83

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

μg/g = micrograms per gram

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 1 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/L)
INORGANICS			
Aluminum	ED	6010	100
Aluminum	QA	6010	25.0
Aluminum	SU	6010	50
Antimony	ED	7041	4
Antimony	QA	7041	1.11
Antimony	SU	7041	5
Arsenic	ED	7060	5
Arsenic	QA	7060	1.70
Arsenic	SU	7060	5
Barium	ED	6010	50
Barium	QA	6010	11.0
Barium	SU	6010	15
Beryllium	ED	6010	3
Beryllium	QA	6010	1.00
Beryllium	SU	6010	5
Cadmium	ED	6010	5
Cadmium	QA	6010	3.00
Cadmium	SU	6010	5
Calcium	ED	6010	*
Calcium	QA	6010	*
Calcium	SU	6010	*
Chromium VI	QA	7196	0.05
Chromium VI	SU	7196	10
Chromium	ED	6010	10
Chromium	QA	6010	5.00
Chromium	SU	6010	10
Cobalt	ED	6010	30
Cobalt	QA	6010	7.00
Cobalt	SU	6010	10
Copper	ED	6010	2.1
Copper	QA	7211	1.00
Copper	SU	6010	20
Cyanide	ED	9010	4
Cyanide	QA	9010	5.00
Iron	ED	6010	100
Iron	QA	6010	8.00
Iron	SU	6010	20
Lead	ED	7421	3
Lead	QA	7421	0.735
Lead	SU	7421	5
Magnesium	ED	6010	*
Magnesium	QA	6010	*
Magnesium	SU	6010	*

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 2 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/L)
INORGANICS (continued)			
Manganese	ED	6010	15
Manganese	QA	6010	6.00
Manganese	SU	6010	50
Mercury	ED	7470	0.2
Mercury	QA	7470	0.110
Nickel	ED	6010	11.7
Nickel	QA	2492	5.00
Nickel	SU	6010	20
Potassium	ED	6010	1000
Potassium	QA	6010	500
Potassium	SU	6010	*
Selenium	ED	7740	5
Selenium	QA	7740	1.72
Selenium	SU	7740	10
Silver	ED	7760	0.1
Silver	QA	6010	2.00
Silver	SU	6010	20
Sodium	ED	6010	*
Sodium	QA	6010	*
Sodium	SU	6010	*
Thallium	ED	7841	2
Thallium	QA	7841	0.811
Thallium	SU	7841	10
Vanadium	ED	6010	25
Vanadium	QA	6010	4.00
Vanadium	SU	6010	30
Zinc	ED	6010	20
Zinc	QA	6010	4.00
Zinc	SU	6010	20
MISCELLANEOUS PARAMETERS			
Alkalinity (Total as CaCO3)	ED	2320	*
Alkalinity (Total as CaCO3)	QA	3101	*
Bicarbonate Alkalinity	ED	2320	*
Bicarbonate Alkalinity	QA	3101	*
Carbonate Alkalinity	ED	2320	5
Carbonate Alkalinity	QA	3101	1000
Hydroxide Alkalinity	ED	2320	*
Hydroxide Alkalinity	QA	3101	1000
Phenolphthalein Alkalinity	ED	2320	5000
Chloride	ED	300	*
Chloride	QA	300	*

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 3 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/L)
MISCELLANEOUS PARAMETERS (continued)			
Fluoride	ED	300	2000
Fluoride	QA	300	16.0
Nitrate	ED	300	200
Nitrate	QA	300	41.0
Sulfate	ED	300	5000
Sulfate	QA	300	403
Total Dissolved Solids	ED	1601	*
Total Dissolved Solids	QA	1601	*
Total Dissolved Solids	SU	1601	*
VOLATILE ORGANICS			
1,1,1-Trichloroethane	ED	524	0.5
1,1,1-Trichloroethane	QA	524	0.287
1,1,1-Trichloroethane	SU	8010	0.5
1,1,2,2-Tetrachloroethane	ED	524	0.5
1,1,2,2-Tetrachloroethane	QA	524	1.33
1,1,2,2-Tetrachloroethane	SU	8010	0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ED	524	0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	QA	524	5.00
1,1,2-Trichloroethane	ED	524	0.5
1,1,2-Trichloroethane	QA	524	1.15
1,1,2-Trichloroethane	SU	8010	0.5
1,2-Dibromo-3-chloropropane (DBCP)	ED	524	5
1,2-Dibromo-3-chloropropane (DBCP)	QA	524	5.14
1,2-Dichloropropane	ED	524	0.5
1,2-Dichloropropane	QA	524	0.650
1,2-Dichloropropane	SU	8010	0.5
2-Hexanone (Methyl-n-butyl ketone)	ED	524	10
2-Hexanone (Methyl-n-butyl ketone)	QA	524	5.00
4-Methyl-2-pentanone (MIBK)	ED	524	5
4-Methyl-2-pentanone (MIBK)	QA	524	5.00
Acetone	ED	524	10
Acetone	QA	524	6.00
Benzene	ED	524	0.5
Benzene	QA	524	0.390
Bromodichloromethane	ED	524	0.5
Bromodichloromethane	QA	524	0.529
Bromodichloromethane	SU	8010	0.5
Bromoform	ED	524	0.5
Bromoform	QA	524	0.685
Bromoform	SU	8010	0.5
Bromomethane	ED	524	0.5

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 4 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/L)
VOLATILE ORGANICS (continued)			
Bromomethane	QA	524	0.948
Bromomethane	SU	8010	0.5
Carbon disulfide	ED	524	5
Carbon disulfide	QA	524	1.00
Carbon tetrachloride	ED	524	0.5
Carbon tetrachloride	QA	524	0.335
Carbon tetrachloride	SU	8010	0.5
Chlorobenzene	ED	524	0.5
Chlorobenzene	QA	524	0.438
Chlorobenzene	SU	8010	0.5
Chloroethane	ED	524	0.5
Chloroethane	QA	524	1.02
Chloroethane	SU	8010	0.5
Chloroform	ED	524	0.5
Chloroform	QA	524	0.124
Chloroform	SU	8010	0.5
Chloromethane	ED	524	0.5
Chloromethane	QA	524	0.622
Chloromethane	SU	8010	0.5
cis-1,3-Dichloropropene	ED	524	0.5
cis-1,3-Dichloropropene	QA	524	0.934
cis-1,3-Dichloropropene	SU	8010	0.5
Dibromochloromethane	ED	524	0.5
Dibromochloromethane	QA	524	0.480
Dibromochloromethane	SU	8010	0.5
Ethylbenzene	ED	524	0.5
Ethylbenzene	QA	524	0.310
Ethylene dibromide (1,2-Dibromoethane)	ED	524	0.5
Ethylene dibromide (1,2-Dibromoethane)	QA	524	0.998
Methylene chloride (Dichloromethane)	ED	524	5
Methylene chloride (Dichloromethane)	QA	524	1.11
Methylene chloride (Dichloromethane)	SU	8010	0.5
Methylethyl ketone (2-Butanone)	ED	524	10
Methylethyl ketone (2-Butanone)	QA	524	5.00
Styrene	ED	524	0.5
Styrene	QA	524	0.325
Tetrachloroethene	ED	524	0.5
Tetrachloroethene	QA	524	0.403
Tetrachloroethene	SU	8010	0.5
Toluene	ED	524	0.5
Toluene	QA	524	0.398
trans-1,3-Dichloropropene	ED	524	0.5
trans-1,3-Dichloropropene	QA	524	0.287

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 5 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/L)
VOLATILE ORGANICS (continued)			
trans-1,3-Dichloropropene	SU	8010	0.5
Trichlorofluoromethane	ED	524	0.5
Trichlorofluoromethane	QA	524	0.355
Trichlorofluoromethane	SU	8010	0.5
Vinyl ester (Vinyl acetate)	ED	524	10
Vinyl ester (Vinyl acetate)	QA	524	5.00
Xylenes (Total)	ED	524	1
Xylenes (Total)	QA	524	0.782
1,1-Dichloroethane	ED	524	0.5
1,1-Dichloroethane	QA	524	0.294
1,1-Dichloroethane	SU	8010	0.5
1,1-Dichloroethene	ED	524	0.5
1,1-Dichloroethene	QA	524	0.555
1,1-Dichloroethene	SU	8010	0.5
1,2-Dichloroethane	ED	524	0.5
1,2-Dichloroethane	QA	524	0.456
1,2-Dichloroethane	SU	8010	0.5
cis-1,2-Dichloroethene	ED	524	0.5
cis-1,2-Dichloroethene	QA	524	0.460
cis-1,2-Dichloroethene	SU	8010	0.5
trans-1,2-Dichloroethene	ED	524	0.5
trans-1,2-Dichloroethene	QA	524	0.428
trans-1,2-Dichloroethene	SU	8010	0.5
Trichloroethene	ED	524	0.5
Trichloroethene	QA	524	0.281
Trichloroethene	SU	8010	0.5
Vinyl chloride (Chloroethene)	ED	524	0.5
Vinyl chloride (Chloroethene)	QA	524	0.393
Vinyl chloride (Chloroethene)	SU	8010	0.5
SEMIVOLATILE ORGANICS			
1,2,4-Trichlorobenzene	ED	8270	8.49
1,2,4-Trichlorobenzene	QA	8270	1.34
1,2-Dichlorobenzene	ED	8270	8.79
1,2-Dichlorobenzene	QA	8270	1.50
1,3-Dichlorobenzene	ED	8270	9.15
1,3-Dichlorobenzene	QA	8270	1.68
1,4-Dichlorobenzene	ED	8270	2.23
1,4-Dichlorobenzene	QA	8270	1.65
2,4,5-Trichlorophenol	ED	8270	5.4
2,4,5-Trichlorophenol	QA	8270	1.20
2,4,6-Trichlorophenol	ED	8270	2.29

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 6 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/L)
SEMIVOLATILE ORGANICS (continued)			
2,4,6-Trichlorophenol	QA	8270	0.799
2,4-Dichlorophenol	ED	8270	8.13
2,4-Dichlorophenol	QA	8270	0.689
2,4-Dimethylphenol	ED	8270	18.5
2,4-Dimethylphenol	QA	8270	1.03
2,4-Dinitrophenol	ED	8270	18
2,4-Dinitrophenol	QA	8270	0.604
2,4-Dinitrotoluene	ED	8270	5.7
2,4-Dinitrotoluene	QA	8270	0.406
2,6-Dinitrotoluene	ED	8270	5.58
2,6-Dinitrotoluene	QA	8270	0.514
2-Chloronaphthalene	ED	8270	11.4
2-Chloronaphthalene	QA	8270	0.823
2-Chlorophenol	ED	8270	8.1
2-Chlorophenol	QA	8270	1.06
2-Methylnaphthalene	ED	8270	7.65
2-Methylnaphthalene	QA	8270	0.904
2-Methylphenol	ED	8270	6.06
2-Methylphenol	QA	8270	1.14
2-Nitroaniline	ED	8270	4.29
2-Nitroaniline	QA	8270	0.741
2-Nitrophenol	ED	8270	8.22
2-Nitrophenol	QA	8270	0.581
3,3'-Dichlorobenzidine	ED	8270	7.59
3,3'-Dichlorobenzidine	QA	8270	1.58
3-Nitroaniline	ED	8270	4.5
3-Nitroaniline	QA	8270	0.759
4,6-Dinitro-2-cresol	ED	8270	10
4,6-Dinitro-2-cresol	QA	8270	0.503
4-Bromophenyl-phenylether	ED	8270	6.45
4-Bromophenyl-phenylether	QA	8270	0.797
4-Chloro-3-cresol	ED	8270	9.06
4-Chloro-3-cresol	QA	8270	0.763
4-Chloroaniline	ED	8270	13.2
4-Chloroaniline	QA	8270	1.21
4-Chlorophenyl-phenylether	ED	8270	5.46
4-Chlorophenyl-phenylether	QA	8270	0.691
4-Methylphenol	ED	8270	5.88
4-Methylphenol	QA	8270	2.50
4-Nitroaniline	ED	8270	8.58
4-Nitroaniline	QA	8270	2.02
4-Nitrophenol	ED	8270	14.1
4-Nitrophenol	QA	8270	0.909

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 7 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/L)
SEMIVOLATILE ORGANICS (continued)			
9H-Carbazole	ED	8270	15
9H-Carbazole	QA	8270	0.330
Benzoic acid	ED	8270	20
Benzoic acid	QA	8270	10.0
Benzyl alcohol	ED	8270	6.87
Benzyl alcohol	QA	8270	10.0
Bis(2-chloroethoxy) methane	ED	8270	8.1
Bis(2-chloroethoxy) methane	QA	8270	0.708
Bis(2-chloroethyl) ether	ED	8270	7.83
Bis(2-chloroethyl) ether	QA	8270	1.91
Bis(2-chloroisopropyl) ether	ED	8270	6.27
Bis(2-chloroisopropyl) ether	QA	8270	10.0
Bis(2-ethylhexyl) phthalate	ED	8270	20.7
Bis(2-ethylhexyl) phthalate	QA	8270	2.34
Butylbenzylphthalate	ED	8270	8.73
Butylbenzylphthalate	QA	8270	0.535
Di-n-butylphthalate	ED	8270	5.28
Di-n-butylphthalate	QA	8270	1.06
Di-n-octylphthalate	ED	8270	7.14
Di-n-octylphthalate	QA	8270	0.455
Dibenzofuran	ED	8270	2.76
Dibenzofuran	QA	8270	0.925
Diethylphthalate	ED	8270	2.79
Diethylphthalate	QA	8270	0.288
Dimethylphthalate	ED	8270	8.79
Dimethylphthalate	QA	8270	0.576
Hexachlorobenzene	ED	8270	1.57
Hexachlorobenzene	QA	8270	0.418
Hexachlorobutadiene	ED	8270	9.63
Hexachlorobutadiene	QA	8270	2.23
Hexachlorocyclopentadiene	ED	8270	9.03
Hexachlorocyclopentadiene	QA	8270	4.11
Hexachloroethane	ED	8270	9.15
Hexachloroethane	QA	8270	2.15
Isophorone	ED	8270	6.27
Isophorone	QA	8270	0.733
N-Nitroso-di-n-propylamine	ED	8270	9.18
N-Nitroso-di-n-propylamine	QA	8270	0.771
N-Nitrosodiphenylamine	ED	8270	4.92
N-Nitrosodiphenylamine	QA	8270	0.603
Nitrobenzene	ED	8270	8.76
Nitrobenzene	QA	8270	1.21
Pentachlorophenol	ED	8270	2.58

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 8 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (μg/L)
SEMIVOLATILE ORGANICS (continued)			
Pentachlorophenol	QA	8270	0.692
Phenol	ED	8270	5.28
Phenol	QA	8270	1.02
Acenaphthene	ED	8270	6.03
Acenaphthene	QA	8270	0.800
Acenaphthylene	ED	8270	5.22
Acenaphthylene	QA	8270	0.678
Anthracene	ED	8270	5.55
Anthracene	QA	8270	0.551
Benzo(a)anthracene	ED	8270	2.47
Benzo(a)anthracene	QA	8270	0.213
Benzo(a)pyrene	ED	8270	1.5
Benzo(a)pyrene	QA	8270	0.274
Benzo(b,k)fluoranthene	ED	8270	1.39
Benzo(b,k)fluoranthene	QA	8270	0.548
Benzo(g,h,i)perylene	ED	8270	4.77
Benzo(g,h,i)perylene	QA	8270	0.329
Benzo(k)fluoranthene	ED	8270	1.79
Benzo(k)fluoranthene	QA	8270	1.12
Chrysene	ED	8270	2.75
Chrysene	QA	8270	0.247
Dibenz(a,h)anthracene	ED	8270	2.08
Dibenz(a,h)anthracene	QA	8270	0.222
Fluoranthene	ED	8270	6.9
Fluoranthene	QA	8270	0.348
Fluorene	ED	8270	3.6
Fluorene	QA	8270	0.684
Indeno(1,2,3-cd)pyrene	ED	8270	1.52
Indeno(1,2,3-cd)pyrene	QA	8270	0.263
Naphthalene	ED	8270	8.22
Naphthalene	QA	8270	0.896
Phenanthrene	ED	8270	4.38
Phenanthrene	QA	8270	0.434
Pyrene	ED	8270	10.4
Pyrene	QA	8270	0.428
ORGANOCHLORINE PESTICIDES			
Aldrin	ED	8080	0.05
Aldrin	QA	8080	0.0400
alpha-BHC	ED	8080	0.025
alpha-BHC	QA	8080	0.120
alpha-Chlordane	ED	8080	0.05

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 9 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/L)
ORGANOCHLORINE PESTICIDES (continued)			
beta-BHC	ED	8080	0.05
beta-BHC	QA	8080	0.110
Chlordane	QA	8080	0.100
delta-BHC	ED	8080	0.05
delta-BHC	QA	8080	0.110
Dieldrin	ED	8080	0.05
Dieldrin	QA	8080	0.0500
Endosulfan I	ED	8080	0.05
Endosulfan II	ED	8080	0.1
Endosulfan II	QA	8080	0.0900
Endosulfan I	QA	8080	0.0600
Endosulfan sulfate	ED	8080	0.1
Endosulfan sulfate	QA	8080	0.0700
Endrin aldehyde	ED	8080	0.5
Endrin aldehyde	QA	8080	0.0900
Endrin ketone	ED	8080	0.5
Endrin ketone	QA	8080	0.0700
Endrin	ED	8080	0.05
Endrin	QA	8080	0.0800
gamma-BHC (Lindane)	ED	8080	0.025
gamma-BHC (Lindane)	QA	8080	0.0600
gamma-Chlordane	ED	8080	0.05
Heptachlor epoxide	ED	8080	0.05
Heptachlor epoxide	QA	8080	0.0500
Heptachlor	ED	8080	0.05
Heptachlor	QA	8080	0.0300
Methoxychlor	ED	8080	0.5
Methoxychlor	QA	8080	10.0
ppDDD	ED	8080	0.1
ppDDD	QA	8080	0.100
ppDDE	ED	8080	0.05
ppDDE	QA	8080	0.0900
ppDDT	ED	8080	0.1
ppDDT	QA	8080	0.0700
Toxaphene	ED	8080	1
Toxaphene	QA	8080	3.00
POLYCHLORINATED BIPHENYLS			
PCB-1016	ED	8080	0.5
PCB-1016	QA	8080	0.650
PCB-1221	ED	8080	0.5
PCB-1221	QA	8080	0.650

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

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Table 3.3-9 Target Analyte List, Analytical Methods, and Reporting Limits for Water Samples, Follow-on RI (page 10 of 10)

Analyte	Laboratory	EPA[1] Method	Reporting Limit (µg/L)
POLYCHLORINATED BIPHENYLS (continued)			
PCB-1232	ED	8080	0.5
PCB-1232	QA	8080	0.650
PCB-1242	ED	8080	0.5
PCB-1242	QA	8080	0.650
PCB-1248	ED	8080	0.5
PCB-1248	QA	8080	0.650
PCB-1254	ED	8080	0.5
PCB-1254	QA	8080	0.650
PCB-1260	ED	8080	0.5
PCB-1260	QA	8080	0.650
CHLORINATED HERBICIDES			
2,4,5-T	ED	8150	1
2,4,5-TP (Silvex)	ED	8150	1
2,4,5-TP (Silvex)	QA	8150	0.0120
2,4,5-T	QA	8150	0.0180
2,4-DB	ED	8150	1
2,4-DB	QA	8150	0.0210
2,4-D	ED	8150	1
2,4-D	QA	8150	0.0130
Dalapon	ED	8150	1
Dalapon	QA	8150	0.0600
Dicamba	ED	8150	1
Dicamba	QA	8150	0.0100
Dichloroprop	ED	8150	1
Dichloroprop	QA	8150	0.0100
Dinoseb	ED	8150	5
Dinoseb	QA	8150	0.0120
MCPA	ED	8150	50
MCPA	QA	8150	0.547
MCPP	ED	8150	50
MCPP	QA	8150	1.37
TOTAL PETROLEUM HYDROCARBONS			
Motor Oil	SU	8015	500
Stoddard solvent	SU	8015	50
TPH-diesel fraction	SU	8015	50
TPH-gas fraction	SU	8015	10

Note: Not all samples were analyzed for each compound group (e.g. VOCs, SVOCs). See text for specific analyte suites.

µg/L = micrograms per liter

* = Analtye always detected above reporting limit.

1 = Except for XRF and CDHS (California Department of Health Services)

ED = Environmental Science and Engineering
QA = Quality Assurance Laboratory
SU = Superior Laboratories

Table 3.4-1 Data Types, Sources and Destinations

Data Category	Data Type	USAEC File Type	Data Source	Destination
GEOTECHNICAL			WORK GROUP I	
	map	GMA	Survey or map-picked data	IRDMIS and project files
	soil boring	GFD	Field logs	IRDMIS and project files
	well construction	GWC	Field logs	IRDMIS and project files
	water levels	GGS	Field logs	IRDMIS and project files
CHEMICAL			LABORATORY	
	surface water	CSW	Analytical lab electronic and hardcopy data	IRDMIS + NTAM
	groundwater	CGW	Analytical lab electronic and hardcopy data	IRDMIS + NTAM
	soils	CSO	Analytical lab electronic and hardcopy data	IRDMIS + NTAM
	sediments	CSE	Analytical lab electronic and hardcopy data	IRDMIS + NTAM
	quality control	CQC	Analytical lab electronic and hardcopy control charts	IRDMIS and project files + NTAM
	wipes	CBI	Analytical lab electronic and hardcopy data	IRDMIS + NTAM
SAMPLE MANAGEMENT				
	sample shipments		Field crew, field QA, Analytical lab Chain-of-custody	Project sample management tracking database
	receipt of analytical results		Level 1 record and group checks - Data manager	Project sample management tracking database and files
	QA/QC review and data qualification		Level 2 USAEC Chemistry letters	Project sample management tracking database and files

Table 3.6-1 Organic Analyses Field QC Blank Summary, Initial and Supplemental RI

Analyte	Number of Detections	Range of Detections (µg/L)
VOLATILE ORGANICS		
Field Blanks (4 analyzed)		
Acetone	2	35-40
Benzene	1	0.070
Trip Blanks (64 analyzed)		
Acetone	22	
Trichlorofluoromethane	1	
Benzene	2	0.15-0.20
Methylene Chloride	1	89
UNKs	27	
Rinse Blanks (27 analyzed)		
Acetone	2	35-94
Chloroform	1	46
UNKs	19	5-30
SEMIVOLATILE ORGANICS		
Field Blanks (1 analyzed)		
Bis(2-ethylhexyl)phthalate	1	1.70
Rinse Blanks (30 analyzed)		
Bis(2-ethylhexyl)phthalate	1	0.03[a]
di-n-butyl phthalate	1	0.04[a]
Bis(2-ethylhexyl)phthalate	5	0.930-2.20
UNKs	2	5.0-6.0
TOTAL PETROLEUM HYDROCARBONS		
Trip Blanks (26 analyzed)		
Total Petroleum Hydrocarbons	1	10,000
Rinse Blanks (20 analyzed)		
Total Petroleum Hydrocarbons	3	500-1,000
HERBICIDES		
Rinse Blanks (11 analyzed)		
24D	1	2.10

µg/L = micrograms per liter
[a] = micrograms per square centimeter
NOTE: Only analytes detected in the blanks are listed on the table.

Table 3.6-2 Inorganic Analyses Field QC Blank Summary, Initial and Supplemental RI

Analyte	Number of Detections	Range of Detections (µg/L)
METALS		
Field Blanks (2 analyzed)		
Lead	1	3.69
Sodium	2	288-608
Rinse Blanks (23 analyzed)		
Calcium	2	35-94
Calcium (Wipe Blank)	1	0.06[a]
Magnesium	2	90.7
Magnesium (Wipe Blank)	1	0.02[a]
Sodium	13	267-556
Sodium (Wipe Blank)	1	0.1[a]
Lead	6	1.41-2.28
Lead (Wipe Blank)	1	0.01[a]
Zn	1	0.01
Zn (Wipe Blank)	1	0.01[a]
Cr	1	22.5
Fe	4	51.9-96.1
Mercury	1	1.86
Barium	3	3.22-11.8
Cadmium	1	6.26
Copper	1	8.490
Potassium	4	446-809
WATER QUALITY PARAMETERS		
Field Blanks (1 analyzed)		
Alkalinity	1	6100
Alkalinity (bicarbonate)	1	5000
Nitrate	1	21.5
Rinse Blanks (14 analyzed)		
Nitrite	1	11.15
Nitrate	3	11.9-30.9
Alkalinity (bicarbonate)	1	2500
Total Dissolved Solids	1	31000
Chloride ion	2	3340-3850

µg/L = micrograms per liter
[a] = micrograms per square centimeter
NOTE: Only analytes detected in the blanks are listed on the table.

Table 3.6-3 Summary of Rinse and Trip Blank Detections, Follow-on RI (page 1 of 3)

Rinse Blank Detections

Analyte	Filtered	Sample Date	Concentration (µg/L)	Sample ID	Sample Equipment
2,4-DB		01/05/95	0.383	PETUBE1	Groundwater
Alkalinity (Total as CaCO3)		11/11/94	2320	979GW07	Groundwater
Alkalinity (Total as CaCO3)		11/10/94	4600	DAEGW03	Groundwater
Aluminum		12/07/94	140	BKGDSB12	Soil
Aluminum	F	11/08/94	33.0	DAEGW05	Groundwater
Aluminum		11/09/94	43.0	LF7GW01	Groundwater
Antimony	F	11/11/94	22.9	979GW07	Groundwater
Antimony	F	04/03/95	12.1	DAEGW08	Groundwater
Antimony	F	11/10/94	19.0	DEHGW03	Groundwater
Antimony		11/09/94	1.79	LF7GW01	Groundwater
Antimony	F	11/09/94	14.4	LF7GW01	Groundwater
Arsenic		11/11/94	2.94	979GW06	Groundwater
Beryllium		11/11/94	1.00	979GW06	Groundwater
Beryllium		12/07/94	1.00	BKGDSB12	Soil
Beryllium	F	11/10/94	1.00	DEHGW03	Groundwater
Beryllium		11/10/94	1.00	DEHGW03	Groundwater
Beryllium		11/16/94	2160	EOMSB03	Groundwater
Beryllium	F	11/09/94	1.00	LF7GW01	Groundwater
Bicarbonate Alkalinity		11/08/94	186000	DAEGW05	Groundwater
Bicarbonate Alkalinity		11/09/94	2320	LF7GW01	Groundwater
Bis(2-ethylhexyl) phthalate		11/16/94	5.39	EOMSB03	Groundwater
Bis(2-ethylhexyl) phthalate		11/09/94	2.40	LF7GW01	Groundwater
Cadmium		11/10/94	3.00	DEHGW03	Groundwater
Cadmium		11/16/94	2130	EOMSB03	Groundwater
Calcium		12/07/94	2810	BKGDSB12	Soil
Calcium		11/16/94	2430	EOMSB03	Groundwater
Chloride		11/11/94	229	979GW07	Groundwater
Chloride		11/08/94	590	DAEGW05	Groundwater
Chloroform		01/11/95	0.960	CGGW02	Groundwater
Chromium		11/08/94	43.0	DAEGW05	Groundwater
Chromium		11/16/94	2170	EOMSB03	Groundwater
Cobalt		11/16/94	2130	EOMSB03	Groundwater
Copper		11/11/94	2.63	979GW06	Groundwater
Copper	F	11/11/94	4.72	979GW07	Groundwater
Copper		12/07/94	36.6	BKGDSB12	Groundwater
Copper	F	11/08/94	1.39	DAEGW05	Groundwater
Copper	F	11/10/94	2.56	DEHGW03	Groundwater

Note: Table excludes rinse and trip blank results affected by method blank contamination
F = Filtered sample
a = Unreliable data; not used to identify results affected by blank contamination

Table 3.6-3 Summary of Rinse and Trip Blank Detections, Follow-on RI (page 2 of 3)

Rinse Blank Detections

Analyte	Filtered	Sample Date	Concentration (µg/L)	Sample ID	Sample Equipment
Copper		11/16/94	19.4	EOMSB03	Groundwater
Copper		11/16/94	18.4	EOMSB05	Groundwater
Copper	F	11/09/94	2.55	LF7GW01	Groundwater
Iron		11/11/94	19.0	979GW07	Groundwater
Iron		12/07/94	408	BKGDSB12	Soil
Iron		11/08/94	360	DAEGW05	Groundwater
Iron	F	11/08/94	47.0	DAEGW05	Groundwater
Iron		01/05/95	335	PETUBE1	Groundwater
Lead		12/07/94	5.31	BKGDSB12	Groundwater
Magnesium		11/11/94	186	979GW06	Groundwater
Magnesium	F	11/11/94	67.0	979GW07	Groundwater
Magnesium		12/07/94	177	BKGDSB12	Soil
Magnesium	F	11/08/94	383	DAEGW05	Groundwater
Magnesium		11/16/94	2120	EOMSB03	Groundwater
Manganese		11/16/94	2050	EOMSB03	Groundwater
Mercury		12/07/94	1.90	BKGDSB12	Soil
Mercury		11/10/94	0.400	DEHGW03	Groundwater
Nickel		11/11/94	12.8	979GW06	Groundwater
Nickel	F	11/11/94	6.30	979GW07	Groundwater
Nickel		12/07/94	19.8	BKGDSB12	Groundwater
Nitrate		11/11/94	158	979GW07	Groundwater
Potassium		11/11/94	10900	979GW06	Groundwater
Potassium		12/07/94	370	BKGDSB12	Soil
Silver	F	11/10/94	7.00	DEHGW03	Groundwater
Sodium		04/10/95	1700	231GW18	Groundwater
Sodium	F	11/11/94	723	979GW07	Groundwater
Sodium		12/07/94	707	BKGDSB12	Soil
Sodium	F	04/03/95	461	DAEGW08	Groundwater
Sodium		04/03/95	329	DAEGW08	Groundwater
Sodium		11/16/94	329	EOMSB03	Groundwater
TPH-diesel fraction		01/05/95	58	PETUBE1	Groundwater
TPH-gas fraction		01/12/95	14	231SB21	Groundwater
TPH-gas fraction		04/03/95	13	DAEGW08	Groundwater
Total Dissolved Solids		04/10/95	74000	231GW18	Groundwater
Total Dissolved Solids		11/11/94	60000	979GW07	Groundwater
Total Dissolved Solids		11/08/94	120000	DAEGW05	Groundwater
Total Dissolved Solids		04/03/95	10000	DAEGW08	Groundwater

Note: Table excludes rinse and trip blank results affected by method blank contamination
F = Filtered sample
a = Unreliable data; not used to identify results affected by blank contamination

Table 3.6-3 Summary of Rinse and Trip Blank Detections, Follow-on RI (page 3 of 3)

Rinse Blank Detections

Analyte	Filtered	Sample Date	Concentration (µg/L)	Sample ID	Sample Equipment
Total Dissolved Solids		11/10/94	44000	DEHGW03	Groundwater
Total Dissolved Solids		11/09/94	54000	LF7GW01	Groundwater
Vanadium		11/16/94	2180	EOMSB03	Groundwater
Zinc		04/13/95	30	286SB12	Groundwater
Zinc		11/11/94	8.00	979GW06	Groundwater
Zinc		11/11/94	7.00	979GW07	Groundwater
Zinc	F	11/11/94	6.00	979GW07	Groundwater
Zinc		12/07/94	39.0	BKGDSB12	Soil
Zinc		11/08/94	4.00	DAEGW05	Groundwater
Zinc	F	11/08/94	5.00	DAEGW05	Groundwater
Zinc		01/05/95	25.0	PETUBE1	Groundwater

Trip Blank Detections

Analyte	Filtered	Sample Date	Concentration (µg/L)	Sample ID	Laboratory
Acetone		04/06/95	15.6	937UVB01M	ESE - Denver
Acetone		04/05/95	17.3	NKGW04	ESE - Denver
Methylene chloride (Dichloromethane)		01/09/95	1.1	HWSB14	Superior
Methylene chloride (Dichloromethane)		01/10/95	1.3	HWSB17	Superior
Trichlorofluoromethane		12/08/94	1.1	231SB11	Superior
Vinyl chloride (Chloroethene)		04/07/95	0.54	LF7GW06	ESE - Denver

Note: Table excludes rinse and trip blank results affected by method blank contamination
F = Filtered sample
a = Unreliable data; not used to identify results affected by blank contamination

Table 3.6-4 Results Affected by Rinse and Trip Blank Contamination, Follow-on RI (page 1 of 5)

Results Affected by Rinse Samples

Sample ID	Sample Depth	Sample Date	Matrix	Filtered	Analyte
1065SB05	10.0	01/12/95	Water		TPH-gas fraction
1065SB05	20.0	01/12/95	Water		TPH-gas fraction
1065SB05	30.0	01/12/95	Water		TPH-gas fraction
215GW01	39.0	11/08/94	Water		Bicarbonate Alkalinity
215GW01	39.0	11/08/94	Water		Chromium
215GW01	39.0	11/08/94	Water		Copper
215GW01	39.0	11/08/94	Water		Iron
215GW01	39.0	11/08/94	Water		Total Dissolved Solids
215GW01	39.0	11/08/94	Water		Zinc
215GW02	37.0	11/10/94	Water		Mercury
215GW03	37.0	11/10/94	Water		Mercury
231GW17	30.0	04/10/95	Water		Total Dissolved Solids
231GW18	15.0	04/10/95	Water		Total Dissolved Solids
231GW19	7.5	04/10/95	Water		Total Dissolved Solids
231SB17	19.0	12/07/94	Water		Lead
231SB20	24.0	01/12/95	Water		TPH-gas fraction
231SB21	26.0	01/12/95	Water		TPH-gas fraction
286SB12	20.0	04/13/95	Water		Zinc
286SB12	30.0	04/13/95	Water		Zinc
286SB13	20.0	04/13/95	Water		Zinc
979GW04	12.0	11/11/94	Water		Copper
979GW04	12.0	11/11/94	Water		Potassium
979GW06	35.0	11/11/94	Water		Copper
979GW06	35.0	11/11/94	Water		Nickel
979GW06	35.0	11/11/94	Water		Potassium
979GW07	12.0	11/11/94	Water		Arsenic
979GW07	12.0	11/11/94	Water		Nickel
979GW07	12.0	11/11/94	Water		Potassium
CGGW01	10.0	11/11/94	Water		Antimony
CGGW01	10.0	11/11/94	Water		Arsenic
CGGW01	10.0	11/11/94	Water		Beryllium
CGGW01	10.0	11/11/94	Water		Nickel
CGGW01	10.0	11/11/94	Water		Potassium
CGGW03	11.0	11/10/94	Water		Beryllium
CGGW03	11.0	11/10/94	Water		Mercury
CGGW03	11.0	11/10/94	Water		Silver
DAEGW03	73.0	11/08/94	Water		Bicarbonate Alkalinity

Note: Table excludes investigative results affected by method blank contamination
Water = Groundwater or Surface Water
Soil = Soil or Sediment
F = Filtered sample

Results Affected by Rinse Samples

Sample ID	Sample Depth	Sample Date	Matrix	Filtered	Analyte
DAEGW03	73.0	11/08/94	Water		Chromium
DAEGW03	73.0	11/08/94	Water		Copper
DAEGW03	73.0	11/08/94	Water		Zinc
DAEGW04	59.0	11/09/94	Water		Bis(2-ethylhexyl) phthalate
DAEGW04	59.0	11/09/94	Water		Total Dissolved Solids
DAEGW05	66.0	11/08/94	Water		Bicarbonate Alkalinity
DAEGW05	66.0	11/08/94	Water		Total Dissolved Solids
DAEGW05	66.0	11/08/94	Water		Zinc
DAEGW08	30.0	04/03/95	Water	F	Antimony
DAEGW08	30.0	04/03/95	Water		TPH-gas fraction
DEHGW01	8.0	11/10/94	Water		Beryllium
DEHGW01	8.0	11/10/94	Water		Cadmium
DEHGW01	8.0	11/10/94	Water		Mercury
DEHGW01	8.0	11/10/94	Water		Total Dissolved Solids
DEHGW03	10.0	11/10/94	Water		Beryllium
DEHGW03	10.0	11/10/94	Water		Copper
DEHGW03	10.0	11/10/94	Water		Mercury
DEHGW03	10.0	11/10/94	Water		Silver
DEHGW04	9.0	11/10/94	Water		Antimony
DEHGW04	9.0	11/10/94	Water		Beryllium
DEHGW04	9.0	11/10/94	Water		Cadmium
DEHGW04	9.0	11/10/94	Water		Copper
DEHGW04	9.0	11/10/94	Water		Mercury
DEHGW04	9.0	11/10/94	Water		Silver
EOMSB02	8.3	11/16/94	Water		Beryllium
EOMSB02	8.3	11/16/94	Water		Chromium
EOMSB02	8.3	11/16/94	Water		Cobalt
EOMSB02	8.3	11/16/94	Water		Copper
EOMSB02	8.3	11/16/94	Water		Manganese
EOMSB02	8.3	11/16/94	Water		Vanadium
EOMSB02	10.0	04/13/95	Water		Zinc
EOMSB03	8.5	11/16/94	Water		Beryllium
EOMSB03	8.5	11/16/94	Water		Bis(2-ethylhexyl) phthalate
EOMSB03	8.5	11/16/94	Water		Chromium
EOMSB03	8.5	11/16/94	Water		Cobalt
EOMSB03	8.5	11/16/94	Water		Manganese
EOMSB03	8.5	11/16/94	Water		Vanadium
EOMSB04	8.5	11/16/94	Water		Beryllium
EOMSB04	8.5	11/16/94	Water		Bis(2-ethylhexyl) phthalate
EOMSB04	8.5	11/16/94	Water		Chromium
EOMSB04	8.5	11/16/94	Water		Cobalt

Note: Table excludes investigative results affected by method blank contamination F = Filtered sample
Water = Groundwater or Surface Water
Soil = Soil or Sediment

Table 3.6-4 Results Affected by Rinse and Trip Blank Contamination, Follow-on RI (page 3 of 5)

Results Affected by Rinse Samples

Sample ID	Sample Depth	Sample Date	Matrix	Filtered	Analyte
EOMSB04	8.5	11/16/94	Water		Copper
EOMSB04	8.5	11/16/94	Water		Manganese
EOMSB04	8.5	11/16/94	Water		Vanadium
EOMSB05	8.3	11/16/94	Water		Bis(2-ethylhexyl) phthalate
EOMSB05	8.3	11/16/94	Water		Chromium
EOMSB05	8.3	11/16/94	Water		Cobalt
EOMSB05	8.3	11/16/94	Water		Manganese
EOMSB05	8.3	11/16/94	Water		Vanadium
EOMSB05	10.0	04/13/95	Water		Zinc
EPSSW01	0.0	11/09/94	Water		Bis(2-ethylhexyl) phthalate
EPSSW01	0.0	11/09/94	Water		Total Dissolved Solids
HWGW01	15.0	01/11/95	Water		Chloroform
HWGW04	23.0	11/09/94	Water		Aluminum
HWGW04	23.0	11/09/94	Water		Antimony
HWGW05	31.0	11/09/94	Water		Antimony
LF1GW01	14.0	11/08/94	Water		Bicarbonate Alkalinity
LF1GW01	14.0	11/08/94	Water		Chromium
LF1GW01	14.0	11/08/94	Water		Copper
LF1GW01	14.0	11/08/94	Water		Iron
LF1GW01	14.0	11/08/94	Water		Total Dissolved Solids
LF1GW01	14.0	11/08/94	Water		Zinc
LF1GW02	41.0	11/08/94	Water		Bicarbonate Alkalinity
LF1GW02	41.0	11/08/94	Water		Chromium
LF1GW02	41.0	11/08/94	Water		Iron
LF1GW02	41.0	11/08/94	Water		Total Dissolved Solids
LF1GW02	41.0	11/08/94	Water		Zinc
LF1GW03	57.0	11/08/94	Water		Bicarbonate Alkalinity
LF1GW03	57.0	11/08/94	Water		Chromium
LF1GW03	57.0	11/08/94	Water		Total Dissolved Solids
LF1GW03	57.0	11/08/94	Water		Zinc
LF1GW04	70.0	11/08/94	Water		Bicarbonate Alkalinity
LF1GW04	70.0	11/08/94	Water		Chromium
LF1GW04	70.0	11/08/94	Water		Copper
LF1GW04	70.0	11/08/94	Water		Total Dissolved Solids
LF1GW04	70.0	11/08/94	Water		Zinc
LF1GW05	31.0	11/08/94	Water		Bicarbonate Alkalinity
LF1GW05	31.0	11/08/94	Water		Chromium
LF1GW05	31.0	11/08/94	Water		Copper
LF1GW05	31.0	11/08/94	Water		Total Dissolved Solids
LF1GW05	31.0	11/08/94	Water		Zinc

Note: Table excludes investigative results affected by method blank contamination
Water = Groundwater or Surface Water
Soil = Soil or Sediment

F = Filtered sample

Table 3.6-4 Results Affected by Rinse and Trip Blank Contamination, Follow-on RI (page 4 of 5)

Results Affected by Rinse Samples

Sample ID	Sample Depth	Sample Date	Matrix	Filtered	Analyte
LF1GW06	80.0	11/08/94	Water		Bicarbonate Alkalinity
LF1GW06	80.0	11/08/94	Water		Chromium
LF1GW06	80.0	11/08/94	Water		Copper
LF1GW06	80.0	11/08/94	Water		Iron
LF1GW06	80.0	11/08/94	Water		Total Dissolved Solids
LF1GW07	60.0	04/03/95	Water	F	Antimony
LF2GW01	15.0	11/09/94	Water		Aluminum
LF2GW01	15.0	11/09/94	Water		Beryllium
LF2GW01	15.0	11/09/94	Water		Bis(2-ethylhexyl) phthalate
LF2GW01	15.0	11/09/94	Water		Total Dissolved Solids
LF2GW02	14.0	11/09/94	Water		Bis(2-ethylhexyl) phthalate
LF7GW01	14.0	11/09/94	Water		Bis(2-ethylhexyl) phthalate
LF7GW01	14.0	11/09/94	Water		Total Dissolved Solids
LF7GW02	10.0	11/08/94	Water		Bicarbonate Alkalinity
LF7GW02	10.0	11/08/94	Water		Chromium
LF7GW02	10.0	11/08/94	Water		Copper
LF7GW02	10.0	11/08/94	Water		Total Dissolved Solids
LF7GW02	10.0	11/08/94	Water		Zinc
LF7GW03	10.0	11/08/94	Water		Bicarbonate Alkalinity
LF7GW03	10.0	11/08/94	Water		Chromium
LF7GW03	10.0	11/08/94	Water		Copper
LF7GW03	10.0	11/08/94	Water		Total Dissolved Solids
LF7GW03	10.0	11/08/94	Water		Zinc
LF7GW04	14.0	11/09/94	Water		Aluminum
LF7GW04	14.0	11/09/94	Water		Bis(2-ethylhexyl) phthalate
LF7GW04	14.0	11/09/94	Water		Total Dissolved Solids
LF7GW05	10.0	11/09/94	Water		Aluminum
LF7GW06	6.0	11/09/94	Water		Antimony
LF7GW07	5.5	11/10/94	Water		Beryllium
LF7GW07	5.5	11/10/94	Water		Cadmium
LF7GW07	5.5	11/10/94	Water		Mercury
LF7GW07	5.5	11/10/94	Water		Silver
LF7SB22	6.5	12/07/94	Water		Lead
LF7SB22	25.0	12/07/94	Water		Lead
LF7SB23	6.5	12/07/94	Water		Lead
NKGW01	45.0	11/10/94	Water		Beryllium
NKGW01	45.0	11/10/94	Water		Cadmium
NKSW01	14.0	11/10/94	Water		Antimony
NKSW01	14.0	11/10/94	Water		Beryllium

Note: Table excludes investigative results affected by method blank contamination
Water = Groundwater or Surface Water
Soil = Soil or Sediment

F = Filtered sample

Table 3.6-4 Results Affected by Rinse and Trip Blank Contamination, Follow-on RI (page 5 of 5)

Results Affected by Rinse Samples

Sample ID	Sample Depth	Sample Date	Matrix	Filtered	Analyte
NKSW01	14.0	11/10/94	Water		Mercury
NKSW01	14.0	11/10/94	Water		Total Dissolved Solids
NKSW02	0.5	11/10/94	Water		Antimony
NKSW02	0.5	11/10/94	Water		Beryllium
NKSW02	0.5	11/10/94	Water		Cadmium
NKSW02	0.5	11/10/94	Water		Mercury
NKSW02	0.5	11/10/94	Water		Silver
NKSW02	0.5	11/10/94	Water		Total Dissolved Solids
NKSW03	4.0	11/10/94	Water		Antimony
NKSW03	4.0	11/10/94	Water		Mercury
NKSW03	4.0	11/10/94	Water		Total Dissolved Solids

Results Affected by Trip Samples

Sample ID	Sample Depth	Sample Date	Matrix	Filtered	Analyte
231SB11	30.0	12/08/94	Water		Trichlorofluoromethane

Note: Table excludes investigative results affected by method blank contamination
Water = Groundwater or Surface Water
Soil = Soil or Sediment

F = Filtered sample

Table 3.6-5 Results Affected by Method Blank Contamination, Initial and Supplemental RI
(page 1 of 3)

Sample ID	Depth (ft bgs)	Analyte(s)
BBSB11	2.0	BA, CO
BBSB11	0.0	BA, CO
BBSB11	0.0	CU, MN, ZN
BBSB11	2.0	CU, MN,
BBSB12	0.0	ppDDE, ppDDT
BBSB13	0.0,2.0	ppDDE
BBSB13	2.0	MN
BBSB15	2.0	MN, ZN
BBSB16	2.0	CO, MN
BBSB17	2.0	BA, CO
BBSB17	0.0	BA, CO, CU, MN
BBSB17	2.0	CU, MN, ZN
BBSB17	0.0	CO
BBSB18	0.0	CO, MN
BBSB18	2.0	BA, CO, CU, MN
BBSB18	2.0	PB
BBSB19	0.0	BA, CO
BBSB19	2.0	CU, MN, ZN
BBSB19	0.0	CU, MN
BBSB19	2.0	CO
BBSB20	2.0	BA, CO
BBSB20	2.0	CU, MN
BBSB20	0.0	CU, MN
BBSB20	0.0	CO
BBSB21	0.0	MN
BBSB22	0.0	MN
BBSB22	2.0	MN, ZN
BKGDSB01	5.0	MN
BKGDSB02	2.0	BA, MN
BKGDSB04	0.0	PB
BKGDSB04	28.0	MN
BKGDSB04	0.0	BA
CGGW02	2.0	BA, CO, CU, MN, ZN
CGGW02	3.5	BA, CO, CU, MN, ZN
CGGW03	5.0	BA, CO, MN
CGGW03		PB
CGGW03	0.5	CU
DAEGW04	8.0	BA
DAESB01	21.0	PB
DAESB02	3.0	MN
DAESB03	0.4	MN
DAESB04	28.9	MN
DEHGW02	5.0	MN
DEHSB01	3.0	BA, CO, CU, MN, ZN
DEHSB01	5.0	BA, CO, CU, ZN
GGGW02	13.6	BA

Table 3.6-5 Results Affected by Method Blank Contamination, Initial and Supplemental RI (page 2 of 3)

Sample ID	Depth (ft bgs)	Analyte(s)
GGGW03	2.0	CU, MN
GGSB07	3.0	CU
GGSD03	0.0	BA, CO, CR, CU, MN
GGSD04	0.0	CO, MN
GGSD05	0.0	CO,MN
HWGW01		PB
HWGW04		PB
HWGW05		PB
HWSB02	28.0	BA
HWSB03	14.6	MEK
HWSB03	2.2	MN
HWSB04	22.0	CU, MN, ZN
HWSB04	22.0	BA, CO
HWSB04	22.0	PB
HWSB05	2.0	MN
HWSB05	23	MEK
LF1SB01	22.5	CU
LF2SB01	3.0	MN
LF2SB02	23.0	MN
LF3SB02	5.0	BA, CO, CU, MN
LF3SB03	5.0	BA, CO, MN, ZN
LF3SB03		PB
LF3SB03	2.0	CO
LF3SB04		PB
LF3SB04	5.0	CO, CU, MN
LF3SB04	2.0	BA, CO, CU, MN, ZN
LF4SB03	13.0	BA, MN
LF4SB03	0.0	PB
LF7GW05		Bis(2-ethylhexyl)phthalate
LF7GW08	3.5	BA, MN
LF7GW09	2.6	BA, CU, MN
LF7GW09	1.1	BA, CO, CU, MN
LF7GW10	4.7	CO, MN
LF7GW10	2.7	BA, CO, CU, MN, ZN
LF7SB01	3.7	BA, CO, MN, ZN
LF7SB01	3.7	PB
LF7SB01	2.2	BA, CO, CU, MN, ZN
LF7SB03	2.5	BA, CO, CU, MN
LF7SB04	3.0	BA, CO
LF7SB04	1.0	MN
LF7SB05	2.6	BA, CO, MN
LF7SB05	0.6	MN
LF7SB06	2.9	CO, CU, MN, ZN
LF7SB07	5.9	BA, CU, MN, ZN
LF7SB08	2.5	CO, CU, MN, ZN

Table 3.6-5 Results Affected by Method Blank Contamination, Initial and Supplemental RI (page 3 of 3)

Sample ID	Depth (ft bgs)	Analyte(s)
LF7SB09	0.5	MN
LF7SB09	2.5	BA, CO, MN, ZN
LF7SB10	2.5	CO, MN
LF7SB10	0.5	BA, CU, MN
LF7SD02	3.6	BA, CO, CU, MN
LF7SD03	4.6	BA, CO, MN
LF7SD04	4.5	MN
LF7SD05	0.0	MN
LF9SB01	4.0	CO
LF9SB01	1.0	MN
LF9SB01	4.0	CO, MN, ZN
NKGW01	10.5	BA, CO, MN, ZN
NKGW01	1.0	MN
NKGW01	10.5	CO
NKSB01	3.0	MN
NKSB02	2.0	CO
NKSB02	2.0	CO, MN
NKSB02	0.0	MN
643SB02	5.0	MN
979GW05	60	BA
979GW05	6.0	PB
979GW07	6.7	BA, CR, CU, ZN

Table 3.6-6 Results Affected by Method Blank Contamination, Follow-on RI (page 1 of 6)

Sample ID	Depth (ft bgs)	Analyte(s)	QC Type[1]
Soil/Sediment:			
1057SB01	3.0	Cyanide	
1057SE01	0.0	Cyanide	
1245SB01	0.7	Bis(2-ethylhexyl) phthalate	
1245SB01	2.7	Bis(2-ethylhexyl) phthalate	
1245SB02	0.7	Bis(2-ethylhexyl) phthalate	
1245SB02	2.7	Bis(2-ethylhexyl) phthalate	
286SB06	5.0	Cyanide	
286SE01	0.0	Bis(2-ethylhexyl) phthalate	
900SS18	0.0	Thallium	
DAESB17	0.0	Bis(2-ethylhexyl) phthalate	
DAESB17	3.5	Bis(2-ethylhexyl) phthalate	
DAESS01	0.0	Bis(2-ethylhexyl) phthalate	
DAESS02	0.0	Bis(2-ethylhexyl) phthalate	
DAESS03	0.0	Bis(2-ethylhexyl) phthalate	
DAESS04	0.0	Bis(2-ethylhexyl) phthalate	
LF2SS02	0.0	Bis(2-ethylhexyl) phthalate	
LF2SS04	0.0	Bis(2-ethylhexyl) phthalate	
LF2SS05	0.0	Bis(2-ethylhexyl) phthalate	
LF6SB01	3.0	Silver	
LF6SB01	9.0	Silver	
LF6SB01	20.0	Silver	
LF6SB02	3.0	Silver	
LF6SB02	8.0	Silver	
LF6SB02	20.0	Silver	
LF6SB03	3.0	Silver	
LF6SB03	8.0	Silver	
LF6SB03	20.0	Silver	
LF6SB04	3.0	Silver	
LF6SB04	8.0	Silver	
LF6SB04	20.5	Silver	
LF6SB05	3.5	Silver	
LF6SB05	8.5	Silver	
LF6SB05	20.0	Silver	

1 = A blank indicates an investigative sample
Note: All water samples affected by method blank contamination were unfiltered.

Table 3.6-6 Results Affected by Method Blank Contamination, Follow-on RI (page 2 of 6)

Sample ID	Depth (ft bgs)	Analyte(s)	QC Type[1]
Soil/Sediment:			
LF6SB06	3.0	Silver	
LF6SB06	8.0	Silver	
LF6SB06	20.0	Silver	
NKSB13	0.0	Bis(2-ethylhexyl) phthalate	
NKSB13	10.0	Bis(2-ethylhexyl) phthalate	
NKSB13	5.0	Bis(2-ethylhexyl) phthalate	
Groundwater/Surface Water:			
215GW01	39.0	Mercury	
215GW02	37.0	Copper	
215GW02	37.0	Lead	
215GW03	37.0	Copper	
215GW03	37.0	Lead	
231GW18	0.0	Bicarbonate Alkalinity	Rinse
286SB06	10.0	Bis(2-ethylhexyl) phthalate	
286SB06	10.0	Cyanide	
286SB08	10.0	Bis(2-ethylhexyl) phthalate	
979GW01	11.0	Bis(2-ethylhexyl) phthalate	
979GW01	11.0	Lead	
979GW01	11.0	Mercury	
979GW01	11.0	Zinc	
979GW02	10.0	Bis(2-ethylhexyl) phthalate	
979GW02	10.0	Copper	
979GW02	10.0	Lead	
979GW02	10.0	Zinc	
979GW03	10.0	Bis(2-ethylhexyl) phthalate	
979GW03	10.0	Lead	
979GW03	10.0	Silver	
979GW03	10.0	Zinc	
979GW04	12.0	Bis(2-ethylhexyl) phthalate	
979GW04	12.0	Lead	
979GW04	12.0	Mercury	
979GW05	23.0	Bis(2-ethylhexyl) phthalate	
979GW05	23.0	Copper	
979GW05	23.0	Lead	
979GW05	23.0	Mercury	
979GW06	35.0	Bis(2-ethylhexyl) phthalate	
979GW06	0.0	Iron	Rinse

1 = A blank indicates an investigative sample
Note: All water samples affected by method blank contamination were unfiltered.

Table 3.6-6 Results Affected by Method Blank Contamination, Follow-on RI (page 3 of 6)

Sample ID	Depth (ft bgs)	Analyte(s)	QC Type[1]
Groundwater/Surface Water:			
979GW06	35.0	Lead	
979GW07	0.0	Aluminum	Rinse
979GW07	12.0	Bis(2-ethylhexyl) phthalate	
979GW07	0.0	Bis(2-ethylhexyl) phthalate	Rinse
979GW07	0.0	Iron	Rinse
979GW07	12.0	Lead	
979GW07	0.0	Sulfate	Rinse
CFLSSB01	7.0	Mercury	
CFLSSB01	7.0	Thallium	
CFLSSB03	7.0	Aluminum	
CFLSSB03	7.0	Beryllium	
CFLSSB03	7.0	Copper	
CFLSSB03	7.0	Lead	
CGGW01	10.0	Bis(2-ethylhexyl) phthalate	
CGGW01	10.0	Lead	
CGGW02	9.0	Bis(2-ethylhexyl) phthalate	
CGGW02	9.0	Copper	
CGGW02	9.0	Lead	
CGGW02	9.0	Thallium	
CGGW03	11.0	Aluminum	
CGGW03	11.0	Bis(2-ethylhexyl) phthalate	
CGGW03	11.0	Copper	
CGGW03	11.0	Lead	
DAEGW03	73.0	Bis(2-ethylhexyl) phthalate	
DAEGW03	73.0	Iron	
DAEGW03	73.0	Mercury	
DAEGW04	59.0	Mercury	
DAEGW05	66.0	Bis(2-ethylhexyl) phthalate	
DAEGW05	0.0	Bis(2-ethylhexyl) phthalate	Rinse
DAEGW05	66.0	Mercury	
DEHGW01	8.0	Bis(2-ethylhexyl) phthalate	
DEHGW01	8.0	Copper	
DEHGW02	10.0	Bis(2-ethylhexyl) phthalate	
DEHGW02	10.0	Copper	
DEHGW02	10.0	Lead	
DEHGW03	0.0	Aluminum	Rinse
DEHGW03	10.0	Antimony	
DEHGW03	10.0	Bis(2-ethylhexyl) phthalate	

1 = A blank indicates an investigative sample
Note: All water samples affected by method blank contamination were unfiltered.

Table 3.6-6 Results Affected by Method Blank Contamination, Follow-on RI (page 4 of 6)

Sample ID	Depth (ft bgs)	Analyte(s)	QC Type[1]
Groundwater/Surface Water:			
DEHGW03	0.0	Chloride	Rinse
DEHGW03	0.0	Iron	Rinse
DEHGW03	0.0	Lead	Rinse
DEHGW04	9.0	Bis(2-ethylhexyl) phthalate	
EOMSB01	7.0	Bis(2-ethylhexyl) phthalate	
EOMSB01	7.0	Cadmium	
EOMSB01	7.0	Silver	
EOMSB01	7.0	Thallium	
EOMSB03	0.0	Iron	Rinse
EOMSB03	0.0	Iron	Rinse
EOMSB03	0.0	Lead	Rinse
EOMSB03	8.5	Mercury	
EOMSB03	8.5	Thallium	
EOMSB03	0.0	Zinc	Rinse
EOMSB03	0.0	Zinc	Rinse
EOMSB04	8.5	Mercury	
EOMSB04	8.5	Thallium	
EOMSB05	0.0	Aluminum	Rinse
EOMSB05	0.0	Iron	Rinse
EOMSB05	0.0	Lead	Rinse
EOMSB05	8.3	Mercury	
EOMSB05	8.3	Thallium	
EOMSB05	0.0	Zinc	Rinse
HWGW01	24.0	Bis(2-ethylhexyl) phthalate	
HWGW01	24.0	Mercury	
HWGW01	24.0	Silver	
HWGW01	24.0	Zinc	
HWGW05	31.0	Copper	
HWGW05	31.0	Mercury	
LF1GW01	14.0	Bis(2-ethylhexyl) phthalate	
LF1GW01	14.0	Mercury	
LF1GW02	41.0	Mercury	
LF1GW03	57.0	Bis(2-ethylhexyl) phthalate	
LF1GW03	57.0	Mercury	
LF1GW04	70.0	Bis(2-ethylhexyl) phthalate	
LF1GW04	70.0	Mercury	
LF1GW05	31.0	Bis(2-ethylhexyl) phthalate	
LF1GW05	31.0	Mercury	
LF1GW06	80.0	Bis(2-ethylhexyl) phthalate	

1 = A blank indicates an investigative sample
Note: All water samples affected by method blank contamination were unfiltered.

Table 3.6-6 Results Affected by Method Blank Contamination, Follow-on RI (page 5 of 6)

Sample ID	Depth (ft bgs)	Analyte(s)	QC Type[1]
Groundwater/Surface Water:			
LF1GW06	80.0	Mercury	
LF2GW01	15.0	Copper	
LF2GW01	15.0	Mercury	
LF2GW02	14.0	Copper	
LF6SB08	17.0	Beryllium	
LF6SB08	17.0	Bis(2-ethylhexyl) phthalate	
LF6SB08	17.0	Di-n-butylphthalate	
LF6SB08	17.0	Lead	
LF6SB08	17.0	Mercury	
LF6SB09	15.6	Beryllium	
LF6SB09	26.5	Beryllium	
LF6SB09	15.6	Bis(2-ethylhexyl) phthalate	
LF6SB09	26.5	Bis(2-ethylhexyl) phthalate	
LF6SB09	15.6	Copper	
LF6SB09	15.6	Di-n-butylphthalate	
LF6SB09	26.5	Di-n-butylphthalate	
LF6SB09	15.6	Lead	
LF6SB10	23.3	Bis(2-ethylhexyl) phthalate	
LF6SB10	0.0	Bis(2-ethylhexyl) phthalate	Rinse
LF6SB10	23.3	Di-n-butylphthalate	
LF6SB10	0.0	Di-n-butylphthalate	Rinse
LF6SB10	0.0	Iron	Rinse
LF6SB10	0.0	Lead	Rinse
LF6SB10	23.3	Mercury	
LF6SB10	0.0	Mercury	Rinse
LF6SB10	0.0	Thallium	Rinse
LF6SB11	20.3	Bis(2-ethylhexyl) phthalate	
LF6SB11	27.7	Bis(2-ethylhexyl) phthalate	
LF6SB11	20.3	Di-n-butylphthalate	
LF6SB11	27.7	Di-n-butylphthalate	
LF6SB11	27.7	Lead	
LF6SB11	20.3	Mercury	
LF6SB11	27.7	Mercury	
LF6SB11	20.3	Thallium	
LF7GW01	0.0	Chloride	Rinse
LF7GW01	14.0	Copper	

1 = A blank indicates an investigative sample
Note: All water samples affected by method blank contamination were unfiltered.

Table 3.6-6 Results Affected by Method Blank Contamination, Follow-on RI (page 6 of 6)

Sample ID	Depth (ft bgs)	Analyte(s)	QC Type[1]
Groundwater/Surface Water:			
LF7GW01	14.0	Mercury	
LF7GW01	0.0	Mercury	Rinse
LF7GW02	10.0	Bis(2-ethylhexyl) phthalate	
LF7GW02	10.0	Mercury	
LF7GW03	10.0	Mercury	
LF7GW05	10.0	Mercury	
LF7GW06	6.0	Copper	
LF7GW07	5.5	Bis(2-ethylhexyl) phthalate	
LF7GW07	5.5	Copper	
LF7GW08	7.0	Bis(2-ethylhexyl) phthalate	
LF7GW08	7.0	Copper	
LF7GW08	7.0	Lead	
LF7GW08	7.0	Mercury	
LF7GW08	7.0	Silver	
LF7GW09	5.5	Bis(2-ethylhexyl) phthalate	
LF7GW09	5.5	Copper	
LF7GW09	5.5	Lead	
LF7GW09	5.5	Mercury	
LF7GW09	5.5	Thallium	
LF7GW10	10.0	Copper	
LF7GW10	10.0	Mercury	
NKGW01	45.0	Bis(2-ethylhexyl) phthalate	
NKGW01	45.0	Lead	
NKSW01	14.0	Aluminum	
NKSW01	14.0	Copper	
NKSW02	0.5	Aluminum	
NKSW02	0.5	Copper	
NKSW02	0.5	Iron	
NKSW03	4.0	Aluminum	
NKSW03	4.0	Copper	
PETUBE1	0.0	Aluminum	Rinse
PETUBE1	0.0	Bis(2-ethylhexyl) phthalate	Rinse
PETUBE1	0.0	Di-n-butylphthalate	Rinse

1 = A blank indicates an investigative sample
Note: All water samples affected by method blank contamination were unfiltered.

Table 3.6-7 Comparison of Investigative and State Split Results, Pesticides in Groundwater, Well DEHGW03, Follow-on RI

Media: Groundwater Site ID: Well DEHGW03 PESTICIDES	QAL Results (μg/L)	State Results (μg/L)	Precision
alpha-BHC	< 0.120	< 0.001	Acceptable
gamma-BHC (Lindane)	< 0.060	< 0.001	Acceptable
Heptachlor	< 0.030	< 0.001	Acceptable
Aldrin	< 0.040	< 0.001	Acceptable
beta-BHC	< 0.100	< 0.001	Acceptable
delta-BHC	< 0.110	< 0.001	Acceptable
Heptachlor epoxide	< 0.050	< 0.001	Acceptable
Endosulfan I	< 0.060	< 0.001	Acceptable
gamma-Chlordane	< 0.100	< 0.001	Acceptable
alpha-Chlordane	< 0.100	< 0.001	Acceptable
ppDDE	< 0.090	< 0.001	Acceptable
Dieldrin	< 0.050	< 0.001	Acceptable
Endrin	< 0.080	< 0.001	Acceptable
ppDDD	< 0.100	< 0.001	Acceptable
Endosulfan II	< 0.090	< 0.001	Acceptable
ppDDT	< 0.070	< 0.001	Acceptable
Endrin aldehyde	< 0.090	< 0.001	Acceptable
Mirex	not analyzed	< 0.004	not analyzed
Methoxychlor	< 10.0	< 0.008	Acceptable
Endosulfan sulfate	< 0.070	< 0.001	Acceptable
Toxaphene	< 3.00	not analyzed	not analyzed

μg/L = micrograms per liter

Table 3.6-8 Comparison of Investigative and State Split Results, Pesticides in Groundwater, Well LF7GW06, Follow-on RI

Media: Groundwater Site ID: Well LF7GW06 PESTICIDES	QAL Results (μg/L)	State Results (μg/L)	Precision
alpha-BHC	< 0.120	< 0.001	Acceptable
gamma-BHC Lindane	< 0.060	< 0.001	Acceptable
Heptachlor	< 0.030	< 0.001	Acceptable
Aldrin	< 0.040	< 0.001	Acceptable
beta-BHC	< 0.110	< 0.001	Acceptable
delta-BHC	< 0.110	< 0.001	Acceptable
Heptachlor epoxide	< 0.050	< 0.001	Acceptable
Endosulfan I	< 0.060	< 0.001	Acceptable
gamma-Chlordane	< 0.100	< 0.001	Acceptable
alpha-Chlordane	< 0.100	< 0.001	Acceptable
ppDDE	< 0.090	< 0.001	Acceptable
Dieldrin	< 0.050	< 0.001	Acceptable
Endrin	< 0.080	< 0.001	Acceptable
ppDDD	< 0.100	< 0.001	Acceptable
Endosulfan II	< 0.090	< 0.001	Acceptable
ppDDT	< 0.070	< 0.001	Acceptable
Endrin aldehyde	< 0.090	< 0.001	Acceptable
Mirex	not analyzed	< 0.004	not analyzed
Methoxychlor	< 10.0	< 0.008	Acceptable
Endosulfan sulfate	< 0.070	< 0.001	Acceptable
Toxaphene	< 3.00	not analyzed	not analyzed

μg/L = micrograms per liter

Table 3.6-9 Comparison of Investigative and State Split Results, PCBs in Groundwater, Wells DEHGW03 and LF7GW06, Follow-on RI

Media: Groundwater Site ID: Well LF7GW06 POLYCHLORINATED BIPHENYLS	QAL Results (μg/L)	State Results (μg/L)	Precision
PCB 1016	< 0.650	< 0.10	Acceptable
PCB 1221	< 0.650	< 0.10	Acceptable
PCB 1232	< 0.650	< 0.10	Acceptable
PCB 1242	< 0.650	< 0.10	Acceptable
PCB 1248	< 0.650	< 0.10	Acceptable
PCB 1254	< 0.650	< 0.10	Acceptable
PCB 1260	< 0.650	< 0.10	Acceptable
PCB 1262	not analyzed	< 0.10	not analyzed

Media: Groundwater SiteID: Well DEHGW03 POLYCHLORINATED BIPHENYLS	QAL Results (μg/L)	State Results (μg/L)	Precision
PCB 1016	< 0.650	< 0.10	Acceptable
PCB 1221	< 0.650	< 0.10	Acceptable
PCB 1232	< 0.650	< 0.10	Acceptable
PCB 1242	< 0.650	< 0.10	Acceptable
PCB 1248	< 0.650	< 0.10	Acceptable
PCB 1254	< 0.650	< 0.10	Acceptable
PCB 1260	< 0.650	< 0.10	Acceptable
PCB 1262	not analyzed	< 0.10	not analyzed

μg/L = micrograms per liter

Table 3.6-10 Comparison of Investigative and State Split Results, TPH in Groundwater, Wells DEHGW03 and LF7GW06, Follow-on RI

Media: Groundwater Site ID: Well DEHGW03 TOTAL PETROLEUM HYDROCARBONS	Superior Results (µg/L)	State Results (µg/L)	Precision
TPH—gasoline fraction	< 50	< 20	Acceptable
TPH—diesel fraction	< 50	< 2,000	Acceptable

Media: Groundwater Site ID: Well LF7GW06 TOTAL PETROLEUM HYDROCARBONS	Superior Results (µg/L)	State Results (µg/L)	Precision
TPH—gasoline fraction	< 50	< 20	Acceptable
TPH—diesel fraction	< 50	< 2,000	Acceptable

µg/L = micrograms per liter

Table 3.6-11 Comparison of Investigative and State Split Results, Inorganics in Groundwater, Well DEHGW03, Follow-on RI

Media: Groundwater Site ID: Well DEHGW03 INORGANICS (method)	QAL Results (μg/L)	State Results (μg/L)	Precision
Barium (ICP)	165	54	Unacceptable
Beryllium (ICP)	2.00	< 1	Unacceptable
Cadmium (ICP)	86.0	< 1	Unacceptable
Chromium (ICP)	52.0	19	Marginal
Cobalt (ICP)	13.0	7	Marginal
Silver (ICP)	11.0	< 1	Unacceptable
Vanadium (ICP)	28.0	9	Unacceptable
Zinc (ICP)	159	96	Marginal

Media: Groundwater Site ID: Well DEHGW03 INORGANICS (method) (filtered)	QAL Results (μg/L)	State Results (μg/L)	Precision
Barium (ICP)	38.0	37	Acceptable
Beryllium (ICP)	< 1.00	< 1	Acceptable
Cadmium (ICP)	< 3.00	< 1	Acceptable
Chromium (ICP)	< 5.00	3	Acceptable
Cobalt (ICP)	< 7.00	< 1	Acceptable
Silver (ICP)	< 2.00	< 1	Acceptable
Vanadium (ICP)	< 4.00	2	Acceptable
Zinc (ICP)	6.00	5	Acceptable

μg/L = micrograms per liter

Table 3.6-12 Comparison of Investigative and State Split Results, Inorganics in Groundwater, Well LF7GW06, Follow-on RI

Media: Groundwater Site ID: Well LF7GW06 INORGANICS (method)	QAL Results (μg/L)	State Results (μg/L)	Precision
Barium (ICP)	28.0	21	Marginal
Beryllium (ICP)	< 1.00	< 1	Acceptable
Cadmium (ICP)	< 3.00	< 1	Acceptable
Chromium (ICP)	9.00	3	Unacceptable
Cobalt (ICP)	< 7.00	1	Acceptable
Silver (ICP)	< 2.00	< 1	Acceptable
Vanadium (ICP)	9.00	2	Unacceptable
Zinc (ICP)	71.0	66	Acceptable

Media: Groundwater Site ID: LF7GW06 INORGANICS (method) (filtered)	QAL Results (μg/L)	State Results (μg/L)	Precision
Barium (ICP)	< 11.0	8	Acceptable
Beryllium (ICP)	1.00	< 1	Acceptable
Cadmium (ICP)	< 3.00	< 1	Acceptable
Chromium (ICP)	< 5.00	< 1	Acceptable
Cobalt (ICP)	< 7.00	< 1	Acceptable
Silver (ICP)	< 2:00	< 1	Acceptable
Vanadium (ICP)	< 4.00	< 1	Acceptable
Zinc (ICP)	< 4.00	10	Unacceptable

μg/L = micrograms per liter

Table 3.6-13 Comparison of Investigative and State Split Results, Background Soil Samples, Follow-on RI (page 1 of 2)

Media: Soil Site ID: BKGDSB11 Sample Depth: 9.5 ft bgs INORGANICS (method)	QAL Results (μg/g)	State Results (μg/g)	Precision
Antimony (GFAA)	< 0.100	< 7.50	Acceptable
Barium (ICP)	74.2	65.6	Acceptable
Beryllium (ICP)	0.362	0.67	Marginal
Cadmium (ICP)	< 0.800	1.02	Acceptable
Chromium (ICP)	841	71.6	Unacceptable
Cobalt (ICP)	9.71	10.6	Acceptable
Copper (ICP)	36.9	33.2	Acceptable
Nickel (ICP)	48.5	49.3	Acceptable
Vanadium (ICP)	53.7	52.6	Acceptable
Zinc (ICP)	57.8	50.7	Acceptable

Media: Soil Site ID: BKGDSB06 Sample Depth: 2.0 ft bgs INORGANICS (method)	QAL Results (μg/g)	State Results (μg/g)	Precision
Anitmony (GFAA)	< 0.100	< 7.50	Acceptable
Barium (ICP)	22.0	18.9	Acceptable
Beryllium (ICP)	0.194	0.34	Marginal
Cadmium (ICP)	< 0.800	0.61	Acceptable
Chromium (ICP)	38.0	35.1	Acceptable
Cobalt (ICP)	6.88	6.25	Acceptable
Copper (ICP)	16.1	23.0	Marginal
Nickel (ICP)	24.4	27.3	Acceptable
Vanadium (ICP)	28.0	28.2	Acceptable
Zinc (ICP)	24.5	35.5	Marginal

μg/g = micrograms per gram

Table 3.6-13 Comparison of Investigative and State Split Results, Background Soil Samples, Follow-on RI (page 2 of 2)

Media: Soil Site ID: BKGDSB10 Sample Depth: 3.5 ft bgs INORGANICS (method)	QAL Results (µg/g)	State Results (µg/g)	Precision
Antimony (GFAA)	< 0.100	< 7.50	Acceptable
Barium (ICP)	12.5	11.4	Acceptable
Beryllium (ICP)	0.163	0.32	Marginal
Cadmium (ICP)	< 0.800	0.55	Acceptable
Chromium (ICP)	26.9	32.6	Acceptable
Cobalt (ICP)	5.44	4.86	Acceptable
Copper (ICP)	10.8	46.0	Unacceptable
Nickel (ICP)	18.5	20.1	Acceptable
Vanadium (ICP)	22.0	28.4	Acceptable
Zinc (ICP)	18.6	34.1	Marginal

Media: Soil Site ID: BKGDSB14 Sample Depth: 1.5 ft bgs INORGANICS (method)	QAL Results (µg/g)	State Results (µg/g)	Precision
Antimony (GFAA)	< 0.100	8.07	Unacceptable
Barium (ICP)	71.2	42.7	Marginal
Beryllium (ICP)	< 10.0	0.53	Acceptable
Cadmium (ICP)	< 80.0	2.97	Acceptable
Chromium (ICP)	807	1,050	Acceptable
Cobalt (ICP)	104	114	Acceptable
Copper (ICP)	34.1	36.5	Acceptable
Nickel (ICP)	2,830	2,500	Acceptable
Vanadium (ICP)	20.8	39.2	Marginal
Zinc (ICP)	16.0	62.1	Unacceptable

Table 3.7-1 Regional Background/Ambient Soil Concentrations

Analytes	N. Santa Clara County[1]		Union City[2]		San Leandro[3]		Lawrence Berkeley Labs[4]		California Soils[5]		Presidio Background[6]		Presidio Ambient[7]	
	Minimum Detected	Maximum Detected	Minimum Detected	Maximum Detected	Minimum Detected	Maximum Detected	Minimum Detected	Maximum Detected	Minimum Detected	Maximum Detected	Minimum Detected	Maximum Detected	Minimum	Maximum
Aluminum	—	—	—	—	—	—	—	—	52,000	88,000	2,530	25,900	11,600	25,300
Antimony	—	—	—	—	< 3	< 3	1	9	0.57	1.52	<0.100	<41.3	AD	AD
Arsenic	0.2	5.5	6.92	9.36	1.8	5.9	0.25	63	1.1	4.5	<0.250	5.43	4.25	7.44
Barium	—	—	173	306	15.4	499	0.5	1,300	565	767	<3.29	121	125	289
Beryllium	0.3	1.4	<0.5	0.81	< 0.25	0.52	0.05	1	0.68	2.7	<0.100	<10.0	0.842	1.54
Cadmium	—	—	<0.5	1.30	< 0.25	0.25	0.05	7.5	0.18	0.44	<0.515	<80.0	>0.1	3.99
Calcium	—	—	—	—	—	—	—	—	2,570	37,630	368	9,200	N/A	N/A
Chromium	30.5	72	41.0	112	24.8	43	4.1	110	87	129	17.9	1,290	100	930
Cobalt	—	—	8.74	10.0	5.1	15.8	1	35	2.7	14.2	3.99	140	24.7	134
Copper	23.8	47.5	28.2	51.5	11.8	68	0.3	250	9.5	28.7	4.60	80.8	34	98
Cyanide	—	—	—	—	—	—	—	—	—	—	<0.250	<0.920	AD	AD
Iron	—	—	—	—	—	—	—	—	10,000	43,000	6,030	80,700	35,100	63,400
Lead	6.8	16.1	19.8	148	3.3	10.4	0.5	31	16	39.1	1.59	<50.0	24	221
Magnesium	—	—	—	—	—	—	—	—	1,456	9,873	1,520	270,000	N/A	N/A
Manganese	—	—	—	—	—	—	—	—	268	593	91.5	2,090	476	1,430
Mercury	—	—	<0.1	0.36	< 0.10	< 0.10	0.05	0.76	0.1	0.63	<0.027	0.0897	0.0571	0.281
Nickel	46.4	101	32.4	60.6	2.93	43.6	6	309	9	52	15.0	3,950	105	1,590
Potassium	—	—	—	—	—	—	—	—	15,600	29,300	<50	<5,000	N/A	N/A
Selenium	—	—	<0.5	<0.5	< 0.25	0.25	0.5	16	0.015	0.43	<0.250	<1.66	>0.25	0.832
Silver	—	—	<0.5	<0.5	< 0.50	< 0.50	0.2	6.5	0.16	0.44	<0.521	<5.00	0.927	3.26
Sodium	—	—	—	—	—	—	—	—	10,230	20,970	<38.7	450	N/A	N/A
Thallium	—	—	<5.0	<5.0	< 0.50	0.5	2	130	0.44	0.9	<0.162	<34.3	AD	AD
Vanadium	—	—	45.3	49.2	18.2	31.6	0.79	130	48	133	11.8	85.4	68.6	106
Zinc	47.7	82.8	97.1	474	9.3	61.3	17	174	100	144	6.64	95.0	61.9	280

units in $\mu g/g$
— = Not analyzed in this study
AD = any detection initially considered above ambient
N/A = Not Available
1 = Scott, 1991
2 = SEC Donohue, 1992
3 = Dames & Moore, 1989
4 = Lawrence Berkeley National Laboratory, 1995
5 = Bradford et al., 1992
6 = Range of concentrations reported for PSF background samples from Colma Formation, serpentinite, and beach/dune categories
7 = Range of PSF ambient concentration values derived for the four lithologic categories (serpentinite, Colma Formation, beach/dune, and fill)

Table 3.7-2 Background Metals: ANOVA by Soil Type

Analyte	Assumed Distribution	Mean Concentrations Significantly Different for			
		Colma, Beach, and Dune	Beach and Colma	Beach and Dune	Colma and Dune
Aluminum	Lognormal	Yes	Yes	●	Yes
Antimony[a]					
Arsenic[a]					
Barium	Nonparametric	Yes	Yes	●	Yes
Beryllium[a]					
Cadmium[a]					
Calcium	Nonparametric	●			
Chromium	Normal	Yes	Yes	●	Yes
Cobalt	Lognormal	Yes	Yes	●	Yes
Copper	Lognormal	●			
Cyanide[a]					
Iron	Nonparametric	Yes	Yes	●	●
Lead	Lognormal	●			
Magnesium	Nonparametric	Yes	Yes	●	Yes
Manganese	Normal	Yes	Yes	●	Yes
Mercury[a]					
Nickel	Nonparametric	Yes	Yes	●	Yes
Potassium	Normal	●			
Selenium[a]					
Silver[a]					
Sodium	Nonparametric	Yes	Yes	●	Yes
Thallium[a]					
Vanadium	Nonparametric	Yes	Yes	●	●
Zinc	Lognormal	Yes	Yes	●	Yes

[a] ANOVA procedure not performed because the percentage of quantified results for the analyte was less than 80%.

● No statistical evidence suggesting the mean concentrations are different.

Table 3.7-3 Ambient Metal Concentrations in Beach/Dune Deposits

Metal	Detections/ Samples Analyzed	Data Set Distribution Assumption	Threshold Value[a]	Number of Outliers[a]	Soil Metal Concentration Statistics for Ambient Data Sets (μg/g)								
						Normal			Lognormal				Ambient Value
					Maximum[c] Detected	Mean	Standard Deviation	% Coefficient of Variance	Mean[b]	Standard Deviation[b]	% Coefficient of Variance	95th Percentile	LCL[d]	DL[e]
Aluminum	171/171	Log	16,000	19	15,000	6,744	3,030	44.9	8.73	0.411	4.71	12,100	11,600	
Antimony	3/157	Nonpar	AD	3	166	14.2	17.9	126	1.84	1.84	100	AD	AD	0.1
Arsenic	133/173	Log	6.4	3	6.30	2.65	1.19	44.7	0.866	0.485	56.1	5.28	5.00	
Barium	171/171	Log	—	0	673	60.8	90.7	149	3.50	1.02	29.3	177	159	
Beryllium	90/171	Nonpar	1.19	4	1.19	0.364	0.256	70.5	-1.20	0.576	48.1	0.937	0.889	
Cadmium	14/171	Nonpar	AD	13	17.6	0.628	1.42	226	-0.812	0.596	73.4	AD	AD	0.5
Chromium	171/171	Log	121	24	134	59.9	26.9	44.9	3.99	0.471	11.8	117	111	
Cobalt	170/171	Log	—	0	109	14.9	14.7	98.4	2.43	0.676	27.8	34.6	32.1	
Copper	155/171	Log	93	5	92.3	17.4	16.1	92.8	2.44	0.986	40.3	58.3	52.2	
Cyanide	8/49	Nonpar	AD	0	0.811	0.257	0.166	64.5	-1.55	0.610	39.4	AD	AD	0.25
Iron	171/171	Log	—	0	585	18,300	10,100	55.1	9.68	0.512	5.29	37,100	35,100	
Lead	176/259	Log	446	8	426	32.3	60.6	187	2.46	1.35	55.0	107	96	
Manganese	171/171	Log	735	7	669	240	147	61.3	5.32	0.550	10.3	506	476	
Mercury	52/172	Nonpar	0.11	16	0.118	0.031	0.021	67.2	-3.65	0.609	16.7	0.080	0.0760	
Nickel	171/171	Nonpar	380	6	360	56.6	55.7	98.4	3.76	0.680	18.1	196	166	
Selenium	14/172	Nonpar	2.1	2	2.09	0.275	0.302	110	-1.54	0.590	38.2	0.899	0.832	
Silver	25/167	Nonpar	—	0	1.65	0.398	0.252	63.4	-1.12	0.796	71.0	0.948	0.927	
Thallium	0/111	Nonpar	AD	0.00	17.2	9.75	8.40	86.2	0.621	2.60	419	AD	AD	0.162
Vanadium	171/171	Log	82	5	81.9	38.2	17.6	46.0	3.54	0.448	12.7	72.2	68.6	
Zinc	179/185	Log	250	8	244	48.0	43.2	89.9	3.59	0.704	19.6	116	107	

— = No discernable threshold value. All values are representative of ambient conditions.
AD = No discernable threshold value or estimated ambient concentration. Any detected concentration will trigger further evaluation.
a = Determined visually from cumulative probability plots in Appendix A.
b = Mean and standard deviation of transformed data [ln(x)].
c = Maximum detected after eliminating outliers from the data set.
d = 80 percent lower confidence limit (LCL) on the 95th percentile.
e = Analyte detection limit (DL): used for inorganics with low detection frequencies.

Table 3.7-4 Ambient Metal Concentrations in Colma Formation

Soil Metal Concentration Statistics for Ambient Data Sets (µg/g)

Metal	Detections/ Samples Analyzed	Data Set Distribution Assumption	Threshold Value[a]	Number of Outliers[a]	Maximum[c] Detected	Normal			Lognormal			95th Percentile	Ambient Value	
						Mean	Standard Deviation	% Coefficient of Variance	Mean[b]	Standard Deviation[b]	% Coefficient of Variance		LCL[d]	DL[e]
Aluminum	59/59	Log	18,000	8	25,900	9,820	3,830	39.0	9.11	0.417	4.57	18,000	16,600	
Antimony	1/60	Nonpar	AD	0	107	11.3	15.5	137	0.976	2.20	226	AD	AD	0.1
Arsenic	34/41	Normal	4.6	2	4.51	2.75	1.07	38.8	0.927	0.438	47.3	4.51	4.25	
Barium	59/59	Log	140	4	139	60.6	33.6	55.4	3.93	0.620	15.8	142	125	
Beryllium	35/59	Log	1.05	5	1.10	0.329	0.264	80.1	-1.44	0.877	60.9	1.00	0.842	
Cadmium	8/59	Nonpar	AD	0	4.00	0.416	0.529	127	-1.20	0.785	65.5	AD	AD	0.1
Chromium	59/59	Nonpar	110	10	107	65.5	23.6	35.9	4.11	0.391	9.50	104	100	
Cobalt	59/59	Log	34.4	9	34.3	13.6	7.22	53.2	2.49	0.500	20.1	27.3	24.7	
Copper	59/59	Log	42	3	41.4	15.0	9.45	63.1	2.48	0.724	29.2	39.1	34.0	
Cyanide	5/33	Nonpar	AD	0	0.516	0.376	0.171	45.6	-1.14	0.636	55.9	AD	AD	0.25
Iron	59/59	Log	—	0	504000	22,100	9550	43.2	9.91	0.431	4.35	41,000	37,800	
Lead	56/62	Nonpar	91	1	90	8.27	14.1	171	1.59	0.848	53.3	39.8	24	
Manganese	59/59	Nonpar	745	2	741	300	142	47.3	5.59	0.501	8.97	598	573	
Mercury	17/59	Nonpar	0.107	5	0.106	0.032	0.021	65.7	-3.60	0.500	13.9	0.0930	0.0751	
Nickel	59/59	Nonpar	120	6	110	60.5	22.6	37.3	4.03	0.382	9.48	106	105	
Selenium	7/59	Nonpar	1	1	0.987	0.253	0.174	69.0	-1.52	0.491	32.3	0.818	0.558	
Silver	24/59	Nonpar	—	(17)	1.89	0.463	0.410	88.6	-1.01	0.614	61.0	1.44	1.34	
Thallium	0/38	Nonpar	AD	0	17.2	3.04	6.30	207	-1.08	1.90	177	AD	AD	0.162
Vanadium	59/59	Log	72	10	71.9	43.6	14.9	34.3	3.71	0.392	10.6	77.6	71.5	
Zinc	60/61	Log	81	2	80.3	37.0	15.4	41.6	3.53	0.418	11.9	67.3	61.9	

— = No discernable threshold value. All values are representative of ambient conditions.
AD = No discernable threshold value or estimated ambient concentration. Any detected concentration will trigger further evaluation.
a = Determined visually from cumulative probability plots in Appendix A.
b = Mean and standard deviation of transformed data [ln(x)].
c = Maximum detected after eliminating outliers from the data set.
d = 80 percent lower confidence limit (LCL) on the 95th percentile.
e = Analyte detection limit (DL): used for inorganics with low detection frequencies.
(17) = outliers are data affected by blank contamination and 1 elevated non-detect that were previously included in data set.

Table 3.7-5 Ambient Metal Concentrations in Serpentinite

Metal	Detections/ Samples Analyzed	Data Set Distribution Assumption	Threshold Value[a]	Number of Outliers[a]	Soil Metal Concentration Statistics for Ambient Data Sets (μg/g)								
						Normal			Lognormal				Ambient Value
					Maximum[c] Detected	Mean	Standard Deviation	% Coefficient of Variance	Mean[b]	Standard Deviation[b]	% Coefficient of Variance	95th Percentile	LCL[d]	DL[e]
Aluminum	24/24	Log	—	0	40,000	12,500	9,240	73.8	9.21	0.687	7.457	30,900	24,800	
Antimony	7/27	Nonpar	AD	0	195	47.1	59.8	127	3.21	1.11	34.5	AD	AD	0.5
Arsenic	21/24	Nonpar	4.8	1	4.69	2.41	1.42	59.0	0.605	0.912	151	4.67	4.56	
Barium	23/24	Normal	—	0	203	79.0	53.0	67.1	3.93	1.22	30.9	166	149	
Beryllium	14/24	Log	—	2	1.51	0.646	0.429	66.4	-0.740	0.895	121	2.08	1.54	
Cadmium	10/24	Nonpar	—	2	4.95	1.41	1.40	100	-0.167	1.05	630	4.81	3.99	
Chromium	24/24	Normal	1,050	6	1,270	556	363	65.3	5.972	0.840	14.1	1,060	930	
Cobalt	24/24	Log	128	5	128	65.9	34.4	52.2	4.00	0.708	17.7	176	134	
Copper	24/24	Normal	55	3	53.0	35.5	14.8	41.8	3.43	0.620	18.1	59.8	51.7	
Cyanide	0/8	Nonpar	AD	0	0.46	0.239	0.158	66.2	-1.617	0.639	39.5	AD	AD	0.25
Iron	24/24	Log	60000	7	58,300	39,600	14,800	37.4	10.5	0.443	4.22	75,640	63,400	
Lead	31/46	Log	301	4	300	28.3	54.2	192	2.30	1.45	63.8	112	80	
Manganese	24/24	Log	—	0	2,090	736	382	51.9	6.49	0.485	7.48	1,460	1,250	
Mercury	11/24	Log	0.068	3	0.067	0.033	0.016	49.2	-3.54	0.521	14.7	0.0680	0.0571	
Nickel	24/24	Log	2000	9	1,940	687	635	92.3	6.04	1.10	18.2	2,560	1590	
Selenium	3/24	Nonpar	AD	0	2.37	0.369	0.546	148	-1.52	0.861	56.7	AD	AD	0.25
Silver	7/23	Nonpar	1.6	5	1.44	0.399	0.314	78.7	-1.09	0.523	48.0	2.61	1.05	
Thallium	0/10	Nonpar	AD	0.00	17.2	4.46	7.07	158	-0.648	2.465	380	AD	AD	0.162
Vanadium	24/24	Log	82	4	81.4	44.8	19.0	42.4	3.71	0.472	12.7	88.5	74.7	
Zinc	30/31	Log	185	4	180	69.1	42.1	61.0	4.03	0.729	18.1	186	149	

— = No discernible threshold value. All values are representative of ambient conditions.
AD = No discernible threshold value or estimated ambient concentration. Any detected concentration will trigger further evaluation
a = Determined visually from cumulative probability plots in Appendix A.
b = Mean and standard deviation of transformed data [ln(x)].
c = Maximum detected after eliminating outliers from the data set.
d = 80 percent lower confidence limit (LCL) on the 95th percentile.
e = Analyte detection limit (DL): used for inorganics with low detection frequencies.

Table Ambient Metal Concentrations in Fill Materials

Metal	Detections/ Samples Analyzed	Data Set Distribution Assumption	Threshold Value[a]	Number of Outliers[a]	Soil Metal Concentration Statistics for Ambient Data Sets (µg/g)								
						Normal			Lognormal				Ambient Value
					Maximum[c] Detected	Mean	Standard Deviation	% Coefficient of Variance	Mean[b]	Standard Deviation[b]	% Coefficient of Variance	95th Percentile	LCL[d]	DL[e]
Aluminum	226/226	Nonpar	—	0	55,700	12,500	7,590	60.7	9.25	0.828	8.95	28,000	25,300	
Antimony	15/216	Nonpar	AD	0	164	15.0	21.0	140	2.02	1.51	74.9	AD	AD	0.1
Arsenic	156/213	Log	10	3	9.59	2.93	1.87	63.8	0.840	0.754	89.8	8.01	7.44	
Barium	226/226	Nonpar	273	24	270	123	80.7	65.8	4.55	1.03	22.6	316	289	
Beryllium	119/227	Nonpar	1.12	19	1.11	0.428	0.279	65.2	-1.05	0.634	60.6	1.02	0.986	
Cadmium	62/227	Nonpar	17.1	2	17.1	1.09	2.21	202	-0.537	0.903	168	4.62	3.66	
Chromium	227/227	Nonpar	620	12	618	109	102	93.3	4.37	0.870	19.9	310	278	
Cobalt	224/227	Nonpar	73	4	70.3	20.4	14.8	72.4	2.74	0.868	31.7	50.6	49.1	
Copper	223/227	Nonpar	139	17	129	39.4	28.5	72.3	3.33	1.07	32.2	100	98	
Cyanide	9/43	Nonpar	AD	0	0.776	0.373	0.159	42.7	-1.11	0.553	49.9	AD	AD	0.25
Iron	227/227	Nonpar	—	0	140,000	28,100	17,100	61.1	10.1	0.896	8.91	51,800	49,200	
Lead	319/371	Log	273	105	270	61.5	66.1	107	3.46	1.24	35.8	246	221	
Manganese	227/227	Nonpar	—	0	4,650	590	529	89.8	6.09	1.00	16.4	1,550	1,420	
Mercury	172/226	Log	0.4	17	0.430	0.100	0.091	90.6	-2.70	0.923	34.2	0.308	0.281	
Nickel	226/227	Log	1110	6	1,100	118	172	146	4.25	0.942	22.2	329	301	
Selenium	37/216	Nonpar	1.9	3	1.80	0.313	0.275	87.9	-1.40	0.619	44.3	0.909	0.819	
Silver	50/227	Nonpar	25	1	24.8	1.06	2.90	272	-0.858	1.15	134	4.74	3.26	
Thallium	3/156	Nonpar	AD	0	100	10.5	10.8	102	1.10	2.27	206	AD	AD	0.162
Vanadium	227/227	Nonpar	—	0.00	300	56.2	33.9	60.2	3.85	0.758	19.7	113	106	
Zinc	240/240	Nonpar	354	43	353	106	79.5	74.6	4.38	0.906	20.7	290	280	

— = No discernable threshold value. All values are representative of ambient conditions.
AD = No discernable threshold value or estimated ambient concentration. Any detected concentration will trigger further evaluation.
a = Determined visually from cumulative probability plots in Appendix A.
b = Mean and standard deviation of transformed data [ln(x)].
c = Maximum detected after eliminating outliers from the data sites.
d = 80 percent lower confidence limit (LCL) on the 95th percentile.
e = Analyte detection limit (DL): used for inorganics with low detectin frequencies.

Table 3.7-7 Ambient Concentrations for the PSF

Analyte	Serpentinite	Colma	Beach/Dune	Fill
Aluminum	24,800	17,400	11,600	25,300
Antimony	5[1]	0.1[1]	0.1[1]	0.1[1]
Arsenic	4.56	4.25	5	7.44
Barium	149	125	159	***289***
Beryllium	1.54	0.842	0.889	0.986
Cadmium	3.99	0.1[1]	0.5[1]	3.66
Chromium	930	100	111	278
Cobalt	134	24.7	32.1	49.1
Copper	54.7	34	52.2	***98***
Cyanide	0.25[1]	0.25[1]	0.25[1]	0.25[1]
Iron	63,400	37,800	35,100	49,200
Lead	***80***	***24***	***96***	***221***
Manganese	1,250	573	476	1,430
Mercury	0.0571	0.0751	0.076	0.281
Nickel	1,590	105	166	301
Selenium	0.25[1]	0.558	0.832	0.819
Silver	1.05	***1.34***	0.927	3.26
Thallium	0.162[1]	0.162[1]	0.162[1]	0.162[1]
Vanadium	74.7	71.5	68.6	106
Zinc	149	61.9	107	***280***

All concentrations are in µg/g.
Bold, Italic numbers are those that have been revised since the November 1995 PSF RI.

[1] = Any detection is considered to be above ambient levels. The concentration shown is the lowest reporting limit.

Table 3.7-8 Ambient Excedences by Study Area - Beach/Dune Deposits

Analyte	RI Study Area										
	Nike Facility	Crissy Field	Building 900s Series	DEH	Main Post	Landfills and Fill Sites	Miscellaneous Sites	GGBHTD	Baker Beach	Battery Howe/Wagner	Misc. Follow-on Sites
Aluminum	—	●	●	●	●	●	●	●	●	—	●
Antimony	—	—	●	●	—	—	—	—	●	—	—
Arsenic	—	●	●	●	●	—	●	—	—	—	●
Barium	—	●	●	●	●	●	●	●	●	—	—
Beryllium	—	●	—	●	—	—	●	●	●	●	—
Cadmium	—	●	—	●	—	—	●	●	●	—	—
Chromium	—	●	●	●	●	—	●	●	●	—	●
Cobalt	—	●	●	●	—	—	—	●	●	●	—
Copper	—	●	●	●	—	—	●	●	●	—	—
Cyanide	●	●	—	●	—	—	—	●	—	—	●
Iron	—	—	●	●	●	—	●	●	●	—	—
Lead	—	●	●	●	●	●	●	●	●	—	—
Manganese	—	●	●	●	●	●	●	●	●	—	●
Mercury	●	●	●	●	●	●	●	●	●	—	●
Nickel	—	●	●	●	—	—	—	●	●	—	●
Selenium	—	—	—	●	●	—	—	—	●	—	●
Silver	—	●	—	●	—	—	●	●	●	—	—
Thallium	—	—	—	—	—	—	—	—	—	—	—
Vanadium	—	—	—	—	—	●	●	●	●	—	—
Zinc	●	●	●	●	●	●	●	●	●	—	—

— = Not identified above ambient concentrations at the specified study area

● = Identified above ambient concentrations at the specified study area. Inorganic is not necessarily a COPC. See study area text (Sections 4 through 14) for identification of COPCs.

Table 3.7-9 Ambient Excedences by Study Area - Colma Formation

	RI Study Area										
Analyte	Nike Facility	Crissy Field	Building 900s Series	DEH	Main Post	Landfills and Fill Sites	Miscellaneous Sites	GGBHTD	Baker Beach	Battery Howe/Wagner	Misc. Follow-on Sites
Aluminum	–	–	–	–	–	–	–	●	–	●	–
Antimony	–	–	–	–	–	–	–	–	–	●	–
Arsenic	–	–	–	–	–	–	–	●	–	●	–
Barium	–	–	–	–	–	●	–	●	–	●	–
Beryllium	–	–	–	–	–	●	–	●	–	●	–
Cadmium	–	–	–	–	–	●	–	–	–	●	–
Chromium	●	–	–	–	–	●	–	●	–	●	–
Cobalt	–	–	–	–	–	●	–	●	–	●	–
Copper	●	●	–	–	–	–	–	–	–	–	–
Cyanide	●	●	–	–	–	–	–	–	–	–	–
Iron	–	–	–	–	–	●	–	●	–	●	–
Lead	–	●	–	–	–	–	●	–	–	●	–
Manganese	●	–	–	–	–	●	–	–	–	●	–
Mercury	●	●	–	–	–	●	–	●	–	●	–
Nickel	●	●	–	–	–	●	–	●	–	●	–
Selenium	–	●	–	–	–	●	–	–	–	–	–
Silver	–	–	–	–	–	–	–	–	–	●	–
Thallium	–	–	–	–	–	–	–	–	–	–	–
Vanadium	●	–	–	–	–	●	–	●	–	●	–
Zinc	●	●	–	–	–	–	–	●	–	●	–

– = Not identified above ambient concentrations at the specified study area or lithology not present in study area samples.
● = Identified above ambient concentrations at the specified study area. Inorganic is not necessarily a COPC. See study area text (Sections 4 through 14) for identification of COPCs.

Table 3 Ambient Excedences by Study Area - Serpentinite

Analyte	RI Study Area										
	Nike Facility	Crissy Field	Building 900s Series	DEH	Main Post	Landfills and Fill Sites	Miscellaneous Sites	GGBHTD	Baker Beach	Battery Howe/Wagner	Misc. Follow-on Sites
Aluminum	–	–	–	–	–	–	●	–	●	–	–
Antimony	–	–	–	–	–	–	–	●	●	●	–
Arsenic	–	–	●	–	–	–	–	●	●	–	–
Barium	–	–	●	–	–	–	●	–	●	–	–
Beryllium	–	–	–	–	–	–	–	–	–	–	–
Cadmium	–	–	–	–	–	–	–	●	–	–	–
Chromium	–	–	–	–	–	–	●	●	–	●	–
Cobalt	–	–	–	–	–	–	–	●	–	●	–
Copper	–	–	●	–	–	–	–	–	–	–	–
Cyanide	–	–	–	–	–	–	–	–	–	–	–
Iron	–	–	–	–	–	–	●	●	–	–	–
Lead	–	–	●	–	–	–	–	●	●	–	–
Manganese	–	–	–	–	–	–	–	–	–	–	–
Mercury	–	–	–	–	–	–	●	●	●	–	–
Nickel	–	–	–	–	–	–	●	●	●	●	–
Selenium	–	–	–	–	–	–	–	–	●	–	–
Silver	–	–	–	–	–	–	–	●	●	●	–
Thallium	–	–	–	–	–	–	–	–	–	–	–
Vanadium	–	–	–	–	–	–	–	●	●	–	–
Zinc	–	–	●	–	–	–	–	●	●	–	–

– = Not identified above ambient concentrations at the specified study area or lithology not present in study area samples.
● = Identified above ambient concentrations at the specified study area. Inorganic is not necessarily a COPC. See study area text (Sections 4 through 14) for identification of COPCs.

Table 3.7-11 Ambient Excedences by Study Area - Fill Materials

	RI Study Area										
Analyte	Nike Facility	Crissy Field	Building 900s Series	DEH	Main Post	Landfills and Fill Sites	Miscellaneous Sites	GGBHTD	Baker Beach	Battery Howe/Wagner	Misc. Follow-on Sites
Aluminum	—	●	●	—	●	●	—	—	—	—	—
Antimony	—	●	●	●	●	●	—	—	●	—	—
Arsenic	●	—	●	—	●	●	—	●	●	—	—
Barium	—	●	●	●	—	●	—	●	●	—	—
Beryllium	—	●	—	●	—	●	—	●	●	●	—
Cadmium	—	●	●	—	—	●	●	—	●	—	—
Chromium	—	●	●	—	●	●	—	●	●	—	—
Cobalt	—	●	●	—	—	●	—	●	●	—	—
Copper	●	●	●	●	—	●	●	●	●	—	—
Cyanide	●	—	●	—	●	●	—	—	—	—	●
Iron	—	●	●	—	●	●	—	—	●	—	—
Lead	●	●	●	●	●	●	●	—	●	—	●
Manganese	—	●	●	●	●	●	—	●	—	—	—
Mercury	—	●	●	—	●	●	●	—	●	—	●
Nickel	—	●	●	—	●	●	—	●	●	—	—
Selenium	●	●	●	—	●	●	—	—	●	—	●
Silver	—	●	●	●	●	●	—	—	●	—	—
Thallium	—	—	●	—	—	—	—	●	—	—	—
Vanadium	—	●	—	—	●	●	—	—	—	—	—
Zinc	●	●	●	—	●	●	●	—	●	—	—

— = Not identified above ambient concentrations at the specified study area.
● = Identified above ambient concentrations at the specified study area. Inorganic is not necessarily a COPC. See study area text (Sections 4 through 14) for identification of COPCs.

Table 3.7-12 Hexavalent Chromium Results for Groundwater

Sample ID	Depth (ft)	Sample Date	Total Cr (µg/L)	Cr VI (µg/L)	Filtered
DAEGW06	39.0	4/5/95	<10	<10	
			<10	<10	F
DAEGW07	8.0	4/4/95	38.2	<10	
			<10	<10	F
DAEGW08	30.0	4/3/95	45.3	<10	
			<10	<10	F
EPSSW01	0.0	11/9/94	36.0	29.7[n]	
HWGW01	24.0	11/7/94	118	220	
	25.0	12/5/94	150	161	
			121	161	F
HWGW04	23.0	11/9/94	33.0	36.6[n]	
HWGW05	31.0	11/9/94	27.0	16.1[n]	
HWSB14	24.0	1/9/95	<10	60	
			710	<10	F
HWSB17	28.0	1/10/95	1,100	<10	
			<10	<10	F
HWSB18	20.0	4/5/95	50	<10	
			20	30	F
	24.0	4/5/95	510	<10	
			30	30	F
LF1GW01	14.0	11/8/94	5.00[f]	15.1	
LF1GW02	41.0	11/8/94	25.0[f]	32.1	
LF1GW03	57.0	11/8/94	73.0[f]	137	
LF1GW04	70.0	11/8/94	55.0[f]	82.4	
LF1GW05	31.0	11/8/94	59.0[f]	102	
LF1GW06	80.0	11/8/94	21.0[f]	31.1	
LF1GW07	60.0	4/3/95	155	<10	
			14.7	80.0	F
LF2GW01	15.0	11/9/94	13.0	29.9[n]	
LF2GW02	14.0	11/9/94	20.0	13.7	
LF2GW04	20.0	4/3/95	213	<10	
			<10	<10	F
LF4GW03	17.0	4/4/95	54.6	<10	
			<10	<10	F
NKGW02	17.0	4/5/95	229	<10	
			<10	<10	F
NKGW03	14.0	4/6/95	18.5	<10	
			<10[n]	<10	F
NKGW04	17.0	4/5/95	50.4	<10	
			<10	<10	F
NKGW05	30.0	4/5/95	159	<10	
			<10	<10	F

f = data affected by blank contamination
n = estimated value

Table 3.7-13 Filtered Versus Unfiltered Inorganics Concentrations in Groundwater (page 1 of 1)

Analyte	Number of Samples	Number of Detections	Frequency of Detections (percent)	Average Concentration (µg/L)
Aluminum	80	74	92.5	3025.33
Aluminum (Filtered)	80	16	20.0	247.84
Antimony	80	13	16.2	7.90
Antimony (Filtered)	80	53	66.2	12.45
Arsenic	69	45	65.2	6.03
Arsenic (Filtered)	69	26	37.6	3.33
Barium	80	72	90.0	75.32
Barium (Filtered)	80	63	78.7	47.08
Beryllium	80	13	16.2	1.87
Beryllium (Filtered)	80	18	22.5	1.51
Cadmium	80	16	20.0	6.17
Cadmium (Filtered)	80	8	10.0	4.27
Calcium	80	80	100.0	60513.75
Calcium (Filtered)	80	80	100.0	57032.50
Chromium	86	70	81.4	629.46
Chromium (Filtered)	86	38	44.1	22.81
Cobalt	80	14	17.5	13.07
Cobalt (Filtered)	80	1	1.2	8.65
Copper	80	46	57.5	6.41
Copper (Filtered)	80	48	60.0	7.97
Iron	77	75	97.4	9570.82
Iron (Filtered)	77	38	49.3	1433.61
Lead	78	49	62.8	14.94
Lead (Filtered)	78	8	10.2	1.62
Magnesium	80	80	100.0	98153.75
Magnesium (Filtered)	80	80	100.0	90255.00
Manganese	80	80	100.0	487.26
Manganese (Filtered)	80	61	76.2	249.80
Mercury	2	1	50.0	0.30
Mercury (Filtered)	2	1	50.0	0.25
Nickel	79	70	88.6	101.67
Nickel (Filtered)	79	43	54.4	20.49
Potassium	79	79	100.0	18675.05
Potassium (Filtered)	79	78	98.7	16769.67
Selenium	62	10	16.1	2.79
Selenium (Filtered)	62	3	4.8	2.76
Silver	80	15	18.7	3.02
Silver (Filtered)	80	11	13.7	2.32
Sodium	80	80	100.0	615227.50
Sodium (Filtered)	80	80	100.0	474847.50
Thallium	80	7	8.7	14.60
Thallium (Filtered)	80	4	5.0	14.58
Zinc	84	68	80.9	121.22
Zinc (Filtered)	84	36	42.8	11.04

Table 3.8-1 Sampling Decision Criteria* for Soil Samples (page 1 of 2)

ANALYTE	SAMPLING DECISION CRITERIA (μg/g)	
INORGANICS		
Arsenic	5.22	(Background: Revised Draft Final RI (WJE, 1993a))
Antimony	30	(EPA PRG[a])
Barium	229	(Background: Revised Draft Final RI (WJE, 1993a))
Beryllium	0.700	(Background: Revised Draft Final RI (WJE, 1993a))
Cadmium	1.2	(Background: Revised Draft Final RI (WJE, 1993a))
Cobalt	85.3	(Background: Revised Draft Final RI (WJE, 1993a))
Chromium	812	(Background: Revised Draft Final RI (WJE, 1993a))
Copper	49.4	(Background: Revised Draft Final RI (WJE, 1993a))
Cyanide	0.920	(Background: Revised Draft Final RI (WJE, 1993a))
Lead	300	(PB6 Model: CEPA, 1993)
Manganese	853	(Background: Revised Draft Final RI (WJE, 1993a))
Mercury	0.031	(Background: Revised Draft Final RI (WJE, 1993a))
Nickel	2,190	(Background: Revised Draft Final RI (WJE, 1993a))
Selenium	0.456	(Background: Revised Draft Final RI (WJE, 1993a))
Silver	0.803	(Background: Revised Draft Final RI (WJE, 1993a))
Thallium	18.9	(Background: Revised Draft Final RI (WJE, 1993a))
Vanadium	85.4	(Background: Revised Draft Final RI (WJE, 1993a))
Zinc	610	(Ecorisk (HQ=10): Revised Draft Final RI (WJE, 1993a))
VOLATILE ORGANICS		
Full Suite	Site specific conditions and/or risk based criteria	
SEMIVOLATILE ORGANICS		
Polyaromatic Hydrocarbons		
Benzo(a)pyrene	0.06	(EPA PRG[a])
Dibenz(a,h)anthracene	0.06	(EPA PRG[a])
Benzo(a)anthracene	0.6	(EPA PRG[a])
Benzo(k)fluoranthene	0.6	(EPA PRG[a])
Benzo(b)fluoranthene	0.6	(EPA PRG[a])
Indeno(1,2,3-cd)pyrene	0.6	(EPA PRG[a])
Chrysene	6	(EPA PRG[a])
Other SVOCs	Site specific conditions and/or risk based criteria	

***Sampling Decision Criteria (SDCs)are not clean-up levels**

a = based on residential scenario (USEPA, 1994c). The 1994 version of the reference is cited because it was current at the time the SDCs were established.

PRG = Preliminary Remediation Goal

HQ = Hazard Quotient

μg/g = micrograms per gram

Table 3.8-1 Sampling Decision Criteria* for Soil Samples (page 2 of 2)

ANALYTE	SAMPLING DECISION CRITERIA (μg/g)	
ORGANOCHLORINE PESTICIDES		
Aldrin	0.026	(EPA PRG[a])
a-BHC	0.07	(EPA PRG[a])
b-BHC	0.25	(EPA PRG[a])
g-BHC (Lindane)	0.34	(EPA PRG[a])
Chlordane	0.34	(EPA PRG[a])
pp-DDD	1.9	(EPA PRG[a])
pp-DDT	1.3	(EPA PRG[a])
Dieldrin	0.028	(EPA PRG[a])
Endosulfan	3.3	(EPA PRG[a])[b]
Endrin	20	(EPA PRG[a])
Heptachlor	0.099	(EPA PRG[a])
Heptachlor epoxide	0.049	(EPA PRG[a])
Methoxychlor	330	(EPA PRG[a])
POLYCHLORINATED BIPHENYLS		
Summed congeners	1	(1994 California clean-up level)
CHLORINATED HERBICIDES		
2,4,5-T	650	(EPA PRG[a])
2,4,5-TP (Silver)	520	(EPA PRG[a])
2,4-D	650	(EPA PRG[a])
2,4-DB	520	(EPA PRG[a])
Dalapon	2,000	(EPA PRG[a])
Dicamba	2,000	(EPA PRG[a])
Dinoseb	65	(EPA PRG[a])
MCPA	65	(EPA PRG[a])
MCPP	65	(EPA PRG[a])
TOTAL PETROLEUM HYDROCARBONS		
TPH (immunoassay)	100	(LUFT Task Force, 1989)
TPH-diesel fraction	100	(LUFT Task Force, 1989)
TPH-gas fraction	10	(LUFT Task Force, 1989)

*** Sampling Decision Criteria (SDCs) are not clean-up levels**

a = based on residential scenario (USEPA, 1994c). The 1994 version of the reference is cited because it was current at the time the SDCs were established.

b = PRG has changed to 390 (EPA 1996a)

PRG = Preliminary Remediation Goal

HQ = Hazard Quotient

μg/g = micrograms per gram

Table 3.8-2 Sampling Decision Criteria For Water Samples/California Primary Maximum Contaminant Levels

ANALYTE	SDC/ PRIMARY MCL[a] (µg/L)	UPDATED PRIMARY MCL[b]
INORGANICS		
Aluminum	1,000	-
Antimony	6[1c]	-
Arsenic	50	-
Barium	1,000	-
Beryllium	4[1c]	-
Cadmium	5[1c]	-
Chromium	50	-
Cyanide	200[1c]	-
Lead	15[4]	-
Mercury	2	-
Nickel	100[1c]	-
Selenium	10	50
Silver	50	none
Thallium	2[1c]	-
MISCELLANEOUS PARAMETERS		
Fluoride	4,000[1]	-
Nitrate	10,000[1]	-
VOLATILE ORGANICS		
Benzene	1	-
Bromodichloromethane	100[2]	-
Bromoform	100[2]	-
Carbon Tetrachloride	0.5	-
Chlorobenzene	30	70
Chloroform	100[2]	-
Dibromochloromethane	100[2]	-
1,2-Dibromo-3-chloropropane	0.2	-
1,1-Dichloroethane	5	-
1,2-Dichloroethane	0.5	-
1,1-Dichloroethene	6	-
cis-1,2-Dichloroethene	6	-
trans-1,2-Dichloroethene	10	-
1,2-Dichloropropane	5	-
cis-1,3-Dichloropropene	0.5[3]	-
trans-1,3-Dichloropropene	0.5[3]	-
Ethyl Benzene	680	700
Ethylene Dibromide	0.02	0.05
Methylene Chloride	5[1c]	-
Styrene	100[1c]	-
1,1,2,2-Tetrachloroethane	1	-
Tetrachloroethene	5	-
Toluene	1,000[1]	150
1,1,1-Trichloroethane	200	-
1,1,2-Trichloroethane	5[1c]	-
Trichloroethene	5	-
Trichlorofluoromethane	150	-
1,1,2-Trichloro-1,2,2-trifluoroethane	1,200	-
Vinyl Chloride (Chloroethene)	0.5	-
Xylenes (total)	1,750	-
SEMIVOLATILE ORGANICS		
Benzo(a)anthracence	0.1[1p]	-
Benzo(b)fluoranthene	0.2[1p]	-
Benzo(k)fluoranthene	0.2[1p]	none
Benzo(a)pyrene	0.2[1c]	-
Bis(2-ethylhexyl) phthalate	4	-
Chrysene	0.2[1p]	-
Dibenz(a,h)anthracene	0.3[1p]	none
1,2-Dichlorobenzene	600[1c]	-
1,3-Dichlorobenzene	600[1]	none
1,4-Dichlorobenzene	5	-
Hexachlorobenzene	1[1c]	-
Hexachlorocyclopentadiene	50[1c]	-
Indeno(1,2,3-c,d)pyrene	0.4[1p]	none
Pentachlorophenol	1[1c]	-
1,2,4-Trichlorobenzene	70[1c]	-
ORGANOCHLORINE PESTICIDES		
gamma-BHC (Lindane)	0.2[1c]	-
Chlordane	0.1	-
Endrin	0.2	2
Heptachlor	0.01	-
Heptachlor expoxide	0.01	-
Methoxychlor	40[1c]	-
Toxaphene	3[1c]	-
PCBs(summed congeners)	0.5	-
CHLORINATED HERBICIDES (Phenoxy Acid Herbicides)		
Bentazon	18	-
2,4-D	70[1c]	-
Dalapon	200[1c]	-
Dinoseb	7[1c]	-
2,4,5-TP (Silvex)	10	50
TOTAL PETROLEUM HYDROCARBONS		
TPH-diesel fraction	50[5]	-
TPH-gas fraction	10[5]	-

*** Sampling Decision Criteria are not clean-up levels**

[1] = EPA Primary MCL is presented because it is lower or no California Primary MCL exists (with exception of fluoride)

[2] = MCL for total trihalomethanes

[3] = MCL for total 1,3-Dichloropropene

[4] = Action level - Primary MCL = 50 µg/L

[5] = SDC based on achievable detection limit (primary MCL not established)

[a] = Reference: Marshack 1993. The 1993 version is cited because it was current at the time the SDCs were established

[b] = Marshack 1995; only changes to MCLs are listed

[c] = California has since adopted EPA MCL (Marshack 1995)

[p] = proposed

SDC = Sampling Decision Criteria

µg/L = micrograms per liter

Table 3.8-3 Summary of Soil Reporting Limits Exceeding SDCs, Follow-on RI

Analyte	Analytical Laboratory Reporting Limit			Sampling Decision Criteria (SDC)
	Superior	QAL	ESE	
SEMIVOLATILE ORGANICS (μg/g)				
Polyaromatic Hydrocarbons				
Benzo(a)pyrene	0.3	0.0625	-	0.06
Dibenz(a,h)anthracene	0.3	0.0625	-	0.06

Table excludes reporting limits that exceed SDC due to sample dilution.
- = reporting limit less than SDC or analysis not requested
μg/g = micrograms per gram
SDC = Sampling Decision Criteria

Table 3.8-4 Summary of Water Reporting Limits Exceeding SDCs, Follow-on RI

Analyte	Analytical Laboratory Reporting Limit			Sampling Decision Criteria (SDC)
	Superior	QAL	ESE	
INORGANICS (µg/L)				
Antimony	10.0[a]	-	-	6
Beryllium	5.0	-	-	4
Thallium	10.0	-	-	2
VOLATILE ORGANICS (µg/L)				
1,1,2,2-Tetrachloroethane	-	1.33	-	1
1,2-Dibromo-3-chloropropane	-	5.14	5.0	0.2
cis-1,3-Dichloropropene	-	0.934	-	0.5
Ethylene dibromide	-	0.998	0.5	0.02
SEMIVOLATILE ORGANICS (µg/L)				
Hexachlorobenzene	-	-	1.57	1
Pentachlorophenol	-	-	2.58	1
Polyaromatic Hydrocarbons				
Benzo(a)anthracene	-	0.213	2.47	0.1
Benzo(a)pyrene	-	0.274	1.5	0.2
Benzo(b)fluoranthene	-	0.548	1.39	0.2
Benzo(k)fluoranthene	-	1.12	1.79	0.2
Chrysene	-	0.247	2.75	0.2
Dibenz(a,h)anthracene	-	-	2.08	0.3
Indeno(1,2,3-cd)pyrene	-	-	1.52	0.4
ORGANOCHLORINE PESTICIDES (µg/L)				
Heptachlor	-	0.03	0.05	0.01
Heptachlor epoxide	-	0.05	0.05	0.01
TOTAL PETROLEUM HYDROCARBONS (µg/L)				
TPH-gas fraction	50[a]	-	-	10

Table excludes reporting limits that exceed SDC due to sample dilution.
- = reporting limit less than SDC or analysis not requested
a = reporting limit not consistently above SDC
µg/L = micrograms per liter
SDC = Sampling Decision Criteria

Table 3.8-5 California Secondary Maximum Contaminant Levels

ANALYTE	CALIFORNIA SECONDARY MAXIMUM CONTAMINANT LEVEL (μg/L)
INORGANICS	
Copper	1,000
Iron	300
Manganese	50
Silver[1]	100
Zinc	5,000
MISCELLANEOUS PARAMETERS	
Chloride	250,000[2]
Fluoride	2,000[3]
Sulfate	250,000[2]
Total Dissolved Solids	500,000[2]
Specific Conductance	900[2] μmhos/cm

[1] Since the Follow-on field program, the primary MCL was dropped and the secondary MCL promulgated.
[2] California Department of Health Services recommended level (Title 22 CCR Article 16 Section 64449).
[3] EPA Secondary MCL: no California Secondary MCL
μg/L = micrograms per liter
Secondary MCLs are shown for those analytes that do not have a California Primary MCL
Source: Marshack, 1995

Table 3.8-6 Water Quality Objectives and Criteria for Saltwater Aquatic Life Protection

Analyte	EPA National Ambient Water Quality Criteria[a] (AWQC)	California RWQCB Water Quality Objectives[b]
INORGANICS[c]		
Arsenic	36 (4-day)	36 (4-day)
Cadmium	9.3 (4-day)	9.3 (4-day)
Chromium VI	50.0 (4-day)	50.0 (4-day)
Copper	2.4 (1-hr)	—[d]
Cyanide	1.0	5.0 (1-hr)
Lead	8.1 (4-day)	5.6 (4-day)
Mercury	0.025 (4-day)	0.025 (4-day)
Nickel	8.2 (4-day)	7.1 (D)
Selenium	71 (4-day)	—
Silver	2.3 (1-hr)	2.3 (I)
Zinc	81 (4-day)	58 (D)
ORGANICS		
Pentachlorophenol	7.9 (4-day)	—
gamma-BHC (Lindane)	0.16 (I)	—
Chlordane[e]	0.0040 (D)	—
pp-DDT[e]	0.0010 (D)	—
Dieldrin[e]	0.0019 (D)	—
Endosulfan[e]	0.0087 (D)	—
Endosulfan Sulfate[e]	0.0087 (D)	—
Endrin[e]	0.0023 (D)	—
Heptachlor[e]	0.0036 (D)	—
Heptachlor expoxide[e]	0.0036 (D)	—
Toxaphene[e]	0.0002 (4-day)	—
PCBs[e]	0.03 (sum of all congeners)	—
PAHs	—	15.0 (D)

[a] = Marshack, 1995.
[b] = California Regional Water Quality Control Board San Francisco Bay Region Water Quality Control Plan, June 1995. New standards will soon be promulgated.
[c] = AWQC are based on dissolved concentrations.
[d] = 4.9 μg/L is considered a site-specific objective based on EPA methodology.
[e] = Reporting limits for Initial, Supplemental, and Follow-on RI samples consistently exceed water quality criteria/objectives.
D = Daily average
I = Instantaneous maximum
1-hr = 1 hour average
4-day = 4 day average
Units are μg/L.

Table 3.8-7 Summary of Freshwater and Sediment Criteria for Protection of Aquatic Life (page 1 of 2)

Analyte	Freshwater (ug/L)			Sediment (mg/kg)						
	Chronic AWQC or FCV		Tier II	EPA Freshwater SQC	EPA Marine SQC	EPA SQB	EPA ARCS SEC [1]	Ontario Lower Effect Level (LEL)[2]	Ontario Severe Effect Level (SEL)[2]	NOAA ERL
Inorganics (dissolved)										
Arsenic III	190						13.26	6	33	8.2
Arsenic V			8.1							
Barium			3.9							
Beryllium			5.1							
Cadmium	1.0	h					2.15	0.6	10	1.2
Chromium III	180	h					25.60	26	110	240 [3]
Chromium VI	10									
Cobalt			3.0							
Copper	11	h					49.02	16	110	34
Iron	1000	i					84400.00	20000	40000	
Lead	2.5	h					43.54	31	250	47
Manganese			80				726.00	460	1100	
Mercury (inorganic)	1.3	f						0.2	2	0.15
Mercury (organic)			0.003							
Molybdenum			240							
Nickel	160	h					19.94	16	75	170 [3]
Selenium	5.0									
Vanadium			19							
Zinc	100	h					124.64	120	820	150
Cyanide	5.2									
Organics										
Acenaphthene	23	f		0.62	1.1					0.016
Anthracene							0.08	0.22	370	
Benzene			46			0.057				
Benzo(a)Pyrene			0.014				0.21	0.37	1440	0.43
Biphenyl			14			1.1				
Bis(2 ethylhexyl)phthalate			32							
Bromophenyl phenyl ether, 4-			1.5			1.3				
Butylbenzyl phthalate			19			11				
Chlorobenzene			130			0.82				
Chlordane								0.007	6	
Chrysene							0.29	0.34	460	
DDTr			0.013					0.007	12	0.0016
ppDDD								0.008	6	
ppDDE								0.005	19	
ppDDT								0.008	71	
Diazinon	0.043	f				0.0019				
Dibenzofuran			20			2.0				
Dichlorobenzene, 1,2-			14			0.34				
Dichlorobenzene, 1,3-			71			1.7				
Dichlorobenzene, 1,4-			15			0.35				
Dichloroethane, 1,1-			47							
Dieldrin	0.062	f		0.052	0.095			0.002	91	
Diethyl phthalate			220			0.63				
Di-n-butyl phthalate			33			11				
Endosulfan, mixed isomers			0.051			0.0054				
Endosulfan, alpha			0.051			0.0029				
Endosulfan, beta			0.051			0.014				
Endrin	0.061	f		0.02	0.0035			0.003	130	
Ethylbenzene			290			3.6				
Fluoranthene	8.1 [4]	f		2.9	1.4		0.10	0.75	1020	0.6
Fluorene			3.9			0.54	0.05	0.19	160	

Table 3.8-7 Summary of Freshwater and Sediment Criteria for Protection of Aquatic Life (page 2 of 2)

Analyte	Freshwater (ug/L)		Sediment (mg/kg)						
	Chronic AWQC or FCV	Tier II	EPA Freshwater SQC	EPA Marine SQC	EPA SQB	EPA ARCS SEC [1]	Ontario Lower Effect Level (LEL)[2]	Ontario Severe Effect Level (SEL)[2]	NOAA ERL
Heptachlor		0.0069					0.005	5	
Hexachloroethane		12			1.0				
Lindane/Hexachlorocyclohexane	0.08				0.0037		0.003	1	
Malathion		0.097			0.00067				
Methoxychlor		0.019			0.019				
Napthalene		24			0.48	0.04			0.16
Pentachlorobenzene		0.47			0.69				
Pentachlorophenol	13 pH								
PAHs						1.70	2	11000	4
PCBs		0.19				0.05	0.07	530	0.023
Phenanthrene	6.3 f		0.85	1.1		0.26			0.24
Pyrene						0.24	0.49	850	0.66
Tetrachloroethane 1,1,2,2-		420			0.94				
Tetrachloroethylene		120			0.53				
Tetrachloromethane		240			1.2				
Toluene		130			0.67				
Toxaphene		0.011			0.028				
Tribromomethane		320			0.65				
Trichlorobenzene, 1,2,4-		110			9.2				
Trichloroethane, 1,1,1-		62			0.17				
Trichloroethylene		350			1.6				
Xylene, m		1.8			0.025				

Source unless otherwise noted: EPA, 1996b (ECO Update, Ecotox Thresholds, Intermittent Bulletin, Vol. 3, No. 2)

[1] Average of listed effects range-low (ERL) values for each analyte from EPA, 1996b

[2] Source for Ontario LEL and SEL (Ontario, 1992.) SEL must be multiplied by TOC.

[3] Apparent Effects Threshold (AET) for San Francisco Bay (State Water Resources Control Board, 1990)

[4] Current cited value of 8.1 will be corrected to 6.2 ug/L (pers. comm. with L. Suer-RWQCB)

f - Final Chronic Value (FCV);

h - hardness dependent ambient water quality criterion (100 mg/L CaCO3 used in table)

i - instantaneous maximum

pH - pH dependent ambient water quality criterion (7.8 pH used in table)

AWQC - Ambient Water Quality Criteria

FCV - Final Chronic Value

Tier II - Great Lakes Water Quality Initiative Tier II methodology

SQC - Sediment Quality Criteria

SQB -Sediment Quality Benchmarks by equilibrium partitioning assuming 1% organic carbon

ARCS SEC - Assessment and Remediation of Contaminated Sediments, Sediment Effect Concentration

ERL - Effects Range --Low (Long et al., 1995)

Saltwater criteria and objectives are presented on Table 3.8-6.

Water quality objectives adopted by the Regional Water Quality Control Board in 1986 are not presented to avoid confusion with final water quality standards for California that will be promulgated.

Table 4.4-1 Summary of Wipe Sample Detections for Building 1450, Nike Facility, Initial RI

Site ID	1450W01	1450W02	1450W03	1450W04	1450W05
Sample Date	09/24/90	09/24/90	09/24/90	09/24/90	09/24/90
INORGANICS ($\mu g/cm^2$)					
Aluminum	0.2	0.3	0.4	0.3	0.3
Antimony	0.01	0.02	0.02	<0.008	<0.008
Barium	0.05	0.04	0.08	0.05	0.03
Cadmium	0.005	0.005	0.007	0.004	0.001
Calcium	1	2	2	3	0.7
Chromium	0.01	0.01	0.02	0.01	0.006
Cobalt	<0.001	0.002	0.002	<0.001	0.001
Copper	0.03	0.03	0.04	0.009	0.01
Cyanide	<0.0004	<0.0004	0.001	<0.0004	<0.0004
Iron	2	0.8	1	1	2
Lead	2	4[a]	5[a]	2[a]	5[a]
Magnesium	0.2	0.2	0.3	0.3	0.2
Manganese	0.02	0.01	0.02	0.01	0.06
Mercury	0.001	0.0003	0.001	0.0002	0.001
Nickel	0.006	0.004	0.02	0.002	0.002
Potassium	0.1	0.1	0.2	<0.072	0.1
Silver	<0.001	0.001	<0.001	<0.001	<0.001
Sodium	0.3	0.2	0.3	0.2	0.1
Vanadium	0.001	0.002	0.001	0.002	0.002
Zinc	0.3	0.4	0.7	0.1	0.1
SEMIVOLATILE ORGANICS					
No detections above certified reporting limit					

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
[a] = diluted sample

Table 4.4-2 Summary of Sediment Sample Detections, Nike Facility, Initial RI

Sample ID Sample Date	NISD01 09/25/90	NISD02 09/25/90	NISD03 09/25/90	NISD04 09/25/90	NISD05 09/25/90	NISD06 09/27/90	NISD07 09/25/90	NISD08 09/25/90	NISD09 09/25/90	NISD10 09/25/90	NISD11 09/25/90	NISD12 09/25/90
INORGANICS (μg/g)												
Aluminum	13,000	12,500	10,600	12,700	12,400	10,300	12,700	13,700	7,480	14,700	18,400	12,200
Arsenic	<2.50	<2.50	15.4	114	110[a]	<2.50	66.9	58[a]	<2.50	3.75	3.54	<2.50
Barium	144	234	81.8	190	182	86.0	108	196	43.9	171	147	116
Cadmium	<1.20	1.57	4.50	3.62	5.42	2.10	3.34	1.80	<1.20	<1.20	<1.20	<1.20
Calcium	18,400	12,200	6,230	33,100	30,000	13,500	9,760	21,100	6,280	39,000	36,900	27,200
Chromium	66.5	43.8	69.0	55.9	65.7	41.0	64.5	75.9	59.4	64.0	53.5	63.9
Cobalt	10.6	12.2	11.6	13.7	11.0	8.22	11.0	11.6	8.44	12.1	11.2	11.7
Copper	57.6	39.2	72.1	287	383	22.4	279	217	10.9	28.2	25.0	18.8
Cyanide	<0.250	<0.250	<0.250	0.405	<0.250	<0.250	<0.250	0.336	<0.250	<0.250	<0.250	<0.250
Iron	26,700	29,100	25,000	45,300	30,600	21,000	40,200	36,800	17,500	23,800	23,900	23,500
Lead	55.5	134	321	2,140	396	38.0	664	251	11.2	54.6	53.9	63.1
Magnesium	7,700	7,890	5,130	5,880	5,640	5,050	5,770	7,190	2,700	9,100	7,590	6,450
Manganese	417	455	367	573	389	360	483	463	244	522	487	459
Mercury	0.373	0.669	0.152	0.100	0.387	>4.0[a]	0.103	0.129	<0.050	0.092	0.058	0.083
Nickel	47.1	36.7	54.2	65.0	63.4	33.9	44.0	44.9	29.2	60.9	45.7	42.8
Potassium	1,380	1,440	1,040	1,250	1,650	1,260	1,680	1,420	665	1,860	2,010	1,170
Sodium	370	197	198	287	330	216	245	241	128	303	1,220	292
Vanadium	46.3	44.1	39.6	45.7	46.1	37.8	36.3	52.1	48.2	48.3	47.6	50.9
Zinc	288	480	754	1,660	1,020	89.6	595	328	31.9	87.0	69.8	124
VOLATILE ORGANICS												
No detections above certified reporting limit												
SEMIVOLATILE ORGANICS (μg/g)												
Acenaphthene	<0.041	<0.041	<0.41[a]	<0.41[a]	<0.041	<0.041	0.62	<0.041	<0.041	<0.041	<0.041	<0.041
Acenaphthylene	<0.033	<0.033	<0.33[a]	<0.33[a]	<0.033	<0.033	0.44	<0.033	<0.033	<0.033	<0.033	<0.033
Anthracene	<0.71	<0.71	<7.1[a]	<7.1[a]	<0.71	<0.71	1.8	3.9	<0.71	<0.71	<0.71	<0.71
Bis(2-ethylhexyl) phthalate	<0.48	<0.48	<4.8[a]	<4.8[a]	<0.48	<0.48	4.0	<0.48	<0.48	<0.48	<0.48	>6.2
Benzo[a]anthracene	<0.041	0.085	20[a]	<0.41[a]	0.62	0.11	2.5	1.5	<0.041	<0.041	1.4	<0.041
Benzo[k]fluoranthene	<0.13	<0.13	<1.3[a]	<1.3[a]	<0.13	<0.13	<0.13	2.1	<0.13	<0.13	<0.13	<0.13
Chrysene	<0.032	0.28	30[a]	<0.32[a]	1.5	0.14	2.6	2.8	<0.032	1.1	1.2	<0.032
Fluoranthene	<0.032	0.96	<0.32[a]	20[a]	3.5	0.36	6.3	>6.2	<0.032	3.3	1.7	<0.032
Fluorene	<0.065	<0.065	<0.65[a]	<0.65[a]	<0.065	<0.065	0.80	2.7	<0.065	<0.065	<0.065	<0.065
2-Methylnaphthalene	<0.032	<0.032	<0.32[a]	<0.32[a]	<0.032	<0.032	0.26	<0.032	<0.032	<0.032	<0.032	<0.032
Pentachlorophenol	<0.76	3.0	<7.6[a]	<7.6[a]	>6.2	<0.76	<0.76	<0.76	<0.76	<0.76	<0.76	<0.76
Phenanthrene	<0.032	0.81	<0.32[a]	10[a]	28	<0.032	7.0	13	<0.032	4.2	<0.032	<0.032
Pyrene	0.14	0.58	<0.83[a]	8[a]	2.3	0.26	9.3	5.3	<0.083	2.1	0.79	<0.083

μg/g = micrograms per gram
< = less than certified reporting limit
> = greater than upper certified reporting limit
[a] = diluted sample

Table 4.4-3 Summary of Soil Boring Sample Detections, Buildings 1450 and 1451, Nike Facility, Follow-on RI (page 1 of 6)

Sample ID	NKSB11	NKSB11	NKSB12	NKSB12	NKSB12	NKSB12	NKSB12
Sample Depth (ft bgs)	0.5	4.5	0.5	1.0	4.5	5.0	9.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
INORGANICS (µg/g)							
Aluminum	5660	4090	NA	6140	5230	NA	3920
Arsenic	2.00[a]	2.38[a]	NA	2.18[a]	1.79[a]	NA	2.23[a]
Barium	20.1	9.56	NA	47.1	20.8	NA	10.4
Beryllium	0.153	0.165	NA	0.195	0.191	NA	0.129
Calcium	2970	2510	NA	7320	3140	NA	1660
Chromium	31.3	25.2	NA	38.4	37.7	NA	21.1
Cobalt	6.46	4.91	NA	6.87	6.08	NA	4.34
Copper	16.5	3.12	NA	34.4	13.7	NA	33.5
Cyanide	<0.250	<12.5[a]	NA	<0.250	<0.250	NA	<12.5[a]
Iron	11200	7010	NA	11000	9780	NA	6110
Lead	2.98	1.89	NA	60.7	3.22	NA	2.29
Magnesium	2710	1820	NA	2340	1760	NA	1530
Manganese	191	106	NA	185	156	NA	85.9
Mercury	<0.0590	<0.0590	NA	0.131	<0.0590	NA	<0.0590
Nickel	19.4	17.8	NA	20.5	16.6	NA	15.7
Potassium	272	289	NA	440	335	NA	278
Sodium	62.5	64.3	NA	78.9	60.0	NA	55.6
Vanadium	27.8	19.5	NA	33.8	31.4	NA	15.7
Zinc	23.1	13.5	NA	110	21.2	NA	38.6
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	3300	NA	NA	3630	NA

µg/g = microgram per gram

< = less than reporting limit

NA = not analyzed

[a] = diluted sample

[f] = data affected by blank contamination

[m] = QC anomaly observed

[n] = estimated value

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Table 4.4-3 Summary of Soil Boring Sample Detections, Buildings 1450 and 1451, Nike Facility, Follow-on RI (page 2 of 6)

Sample ID	NKSB11	NKSB11	NKSB12	NKSB12	NKSB12	NKSB12	NKSB12
Sample Depth (ft bgs)	0.5	4.5	0.5	1.0	4.5	5.0	9.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
VOLATILE ORGANICS (µg/g)							
No detections above reporting limit							
SEMIVOLATILE ORGANICS (µg/g)							
Bis(2-ethylhexyl) phthalate	0.231	0.0839	NA	0.221	0.152	NA	0.121
Phenol	1.02	1.06	NA	0.633	0.855	NA	0.572
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	<3.12	<3.12	NA	<3.12	<3.12	NA	<3.12
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = anomaly observed
[n] = estimated value

Table 4.4-3 Summary of Soil Boring Sample Detections, Buildings 1450 and 1451, Nike Facility, Follow-on RI (page 3 of 6)

Sample ID	NKSB12	NKSB13	NKSB13	NKSB13	NKSB14	NKSB14	NKSB14
Sample Depth (ft bgs)	9.5	0.0	5.0	10.0	0.0	5.0	9.5
Sample Date	11/20/94	12/05/94	12/05/94	12/05/94	12/07/94	12/07/94	12/07/94
INORGANICS (µg/g)							
Aluminum	NA	4330	5240	5130	5760	5940	14500
Arsenic	NA	2.13[a]	1.25[a]	2.20[a]	1.49[a]	1.51[a]	1.49[a]
Barium	NA	24.7	12.9	14.6	38.7	16.2	95.8
Beryllium	NA	0.198	0.209	0.429	0.248	0.275	0.481
Calcium	NA	2580	2810	2930	2840	3580	1580
Chromium	NA	28.0	36.9	40.2	46.2	41.5	53.6
Cobalt	NA	5.32	5.77	6.78	6.61	6.74	14.2
Copper	NA	11.2	3.80	3.92	15.2	8.45	24.4
Cyanide	NA	<0.250	0.356	0.321	0.509	0.345	0.485
Iron	NA	9840	9960	10800	9950	11600	16600
Lead	NA	3.46	2.62	2.77	85.8	7.25	3.97
Magnesium	NA	1750	1940	2150	2470	2270	2910
Manganese	NA	159	110	134	158	138	589
Mercury	NA	<0.0590	<0.0590	<0.0590	<0.0590	<0.0590	<0.0590
Nickel	NA	15.7	18.9	20.6	23.2	21.5	31.2
Potassium	NA	340	283	313	421	366	1020
Sodium	NA	68.4[n]	66.6[n]	84.0[n]	85.0	102	164
Vanadium	NA	28.3	32.0	34.1	26.7	37.8	45.8
Zinc	NA	17.9[m]	17.1[m]	15.5[m]	91.2	25.8	39.7
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	1070	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value

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Table 4.4-3 Summary of Soil Boring Sample Detections, Buildings 1450 and 1451, Nike Facility, Follow-on RI (page 4 of 6)

Sample ID	NKSB12	NKSB13	NKSB13	NKSB13	NKSB14	NKSB14	NKSB14
Sample Depth (ft bgs)	9.5	0.0	5.0	10.0	0.0	5.0	9.5
Sample Date	11/20/94	12/05/94	12/05/94	12/05/94	12/07/94	12/07/94	12/07/94
VOLATILE ORGANICS (µg/g)							
No detections above reporting limit							
SEMIVOLATILE ORGANICS (µg/g)							
Bis(2-ethylhexyl) phthalate	NA	0.168[f]	0.0912[f]	0.150[f]	<0.625[a]	0.0785	0.102
Phenol	NA	<0.0375	<0.0375	0.607	<0.375[a]	<0.0375	<0.0375
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	NA	22.3	22.2	<3.12	<3.12	<3.12	<3.12
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [illegible]omaly observed
[n] = estimated value

Table 4.4-3 Summary of Soil Boring Sample Detections, Buildings 1450 and 1451, Nike Facility, Follow-on RI (page 5 of 6)

Sample ID	NKSB15	NKSB15	NKSB15
Sample Depth (ft bgs)	0.0	5.0	9.5
Sample Date	12/07/94	12/07/94	12/07/94
INORGANICS (µg/g)			
Aluminum	5050	15300	16400[a]
Arsenic	1.48[a]	2.38[a]	2.71[a]
Barium	32.0	95.8	81.2[a]
Beryllium	0.220	0.460	0.585[a]
Calcium	2170	1480	37200[a]
Chromium	27.9	53.8	138[a]
Cobalt	3.69	14.7	2.45[a]
Copper	17.1	20.8	151[a]
Cyanide	0.597	0.430	0.516
Iron	7680	19000	33500[a]
Lead	37.7	5.02	8.11[a]
Magnesium	2040	4630	5420[a]
Manganese	89.3	382	5410[a]
Mercury	<0.0590	0.104	<0.0590
Nickel	18.0	51.8	641[a]
Potassium	468	816	650[a]
Sodium	121	265	155[a]
Vanadium	20.8	44.8	82.0[a]
Zinc	86.2	39.5	54.9[a]
MISCELLANEOUS PARAMETERS (µg/g)			
Total Organic Carbon	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value

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Table 4.4-3 Summary of Soil Boring Sample Detections, Buildings 1450 and 1451, Nike Facility, Follow-on RI (page 6 of 6)

Sample ID	NKSB15	NKSB15	NKSB15
Sample Depth (ft bgs)	0.0	5.0	9.5
Sample Date	12/07/94	12/07/94	12/07/94
VOLATILE ORGANICS (µg/g)			
No detections above reporting limit			
SEMIVOLATILE ORGANICS (µg/g)			
Bis(2-ethylhexyl) phthalate	<0.625[a]	0.0769	<0.0625
Phenol	<0.375[a]	<0.0375	<0.0375
TOTAL PETROLEUM HYDROCARBONS (µg/g)			
TPH-diesel fraction	<3.12	<3.12	<3.12
TPH-gas fraction			
No detections above reporting limit			

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = anomaly observed
[n] = estimated value

Table 4.4-4 Summary of Soil Boring Sample Detections, Nike Facility, Supplemental RI (page 1 of 4)

Sample ID	NKGW01	NKGW01	NKSB01	NKSB01	NKSB02	NKSB02
Sample Depth (ft bgs)	1.0	10.5	0.0	3.0	0.0	2.0
Sample Date	08/18/92	08/18/92	08/19/92	08/19/92	08/19/92	08/18/92
INORGANICS (μg/g)						
Aluminum	11000.000[a]	4950.000	10000.000[a]	10000.000[a]	7500.000[a]	5280.000
Arsenic	4.450	2.510[f]	4.960	3.050	4.440	2.510
Barium	70.000	20.300[f]	178.000	65.400	60.500	30.000
Beryllium	0.966	0.723	0.854	0.713	0.573	0.571
Cadmium	<0.515	<0.515	2.170	<0.515	1.010	<0.515
Calcium	2470.000	3120.000	14000.000[a]	4440.000	7000.000[a]	5190.000
Chromium	105.000	41.600	65.300	75.600	43.400	41.800
Cobalt	11.400[e]	6.480[e,f]	16.300[e]	9.990[e]	9.090[e]	6.300[e,f]
Copper	15.600	8.450	76.000	32.000	33.700	43.200
Iron	24000.000[a]	11000.000[a]	37000.000[a]	19000.000[a]	18000.000[a]	12000.000[a]
Lead	5.820	2.460	270.000[a]	51.000[a]	170.000[a]	19.000[a]
Magnesium	4250.000[f]	2090.000[f]	5020.000	3680.000[f]	3960.000[f]	2460.000[f]
Manganese	326.000[f]	137.000[f]	381.000	254.000[f]	306.000[f]	155.000[f]
Mercury	0.076	<0.027	0.079	<0.027	0.045	<0.027
Nickel	95.000	21.600	56.500	48.400	36.900	24.500

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
> = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 4.4-4 Summary of Soil Boring Sample Detections, Nike Facility, Supplemental RI (page 2 of 4)

Sample ID	NKGW01	NKGW01	NKSB01	NKSB01	NKSB02	NKSB02
Sample Depth (ft bgs)	1.0	10.5	0.0	3.0	0.0	2.0
Sample Date	08/18/92	08/18/92	08/19/92	08/19/92	08/19/92	08/18/92
INORGANICS (continued) (μg/g)						
Potassium	556.000	437.000	996.000	673.000	706.000	493.000
Selenium	0.821	<0.250	1.170	0.815	0.821	0.397
Silver	1.520	0.762	1.630	0.957	0.863	1.140
Sodium	241.000 k	142.000 k	173.000 k	166.000 k	220.000 k	152.000 k
Thallium	93.700 k	46.300 k	154.000 k	70.200 k	70.200 k	47.600 k
Vanadium	76.700	42.000 f	76.500	66.400	45.800	42.200
Zinc	35.500	23.000 f	990.000	157.000	186.000	63.700
VOLATILE ORGANICS (μg/g)						
Trichlorofluoromethane	<0.002	<0.002	0.006	<0.002	<0.002	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
> = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 4.4-4 Summary of Soil Boring Sample Detections, Nike Facility, Supplemental RI (page 3 of 4)

Sample ID	NKGW01	NKGW01	NKSB01	NKSB01	NKSB02	NKSB02
Sample Depth (ft bgs)	1.0	10.5	0.0	3.0	0.0	2.0
Sample Date	08/18/92	08/18/92	08/19/92	08/19/92	08/19/92	08/18/92
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	<0.033	<0.033	0.100	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	0.220	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	<0.033	0.710	0.081	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	1.400	0.200	<0.033	0.047
Benzo(a)pyrene	<0.033	<0.033	0.840	0.130	0.140	<0.033
Bis(2-ethylhexyl)phthalate	<0.390	<0.390	1.600	<0.390	0.910	<0.390
Butylbenzylphthalate	<0.033	<0.033	2.700	0.051	0.430	<0.033
Chrysene	<0.220	<0.220	1.200	<0.220	<0.220	<0.220
Fluoranthene	<0.085	<0.085	1.900	0.250	0.130	<0.085
Fluorene	<0.033	<0.033	0.063	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	0.430	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	0.100	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	0.120	<0.033	<0.033	<0.033
Phenanthrene	<0.033	<0.033	1.100	0.110	0.130	0.049
Pyrene	<0.033	<0.033	<1.300	0.270	0.400	0.063

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
> = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 4.4-4 Summary of Soil Boring Sample Detections, Nike Facility, Supplemental RI (page 4 of 4)

Sample ID	NKGW01	NKGW01	NKSB01	NKSB01	NKSB02	NKSB02
Sample Depth (ft bgs)	1.0	10.5	0.0	3.0	0.0	2.0
Sample Date	08/18/92	08/18/92	08/19/92	08/19/92	08/19/92	08/18/92
ORGANOCHLORINE PESTICIDES[c] (μg/g)						
ppDDD	<0.006	<0.006	0.040[a,d]	<0.006	<0.060[a]	<0.006
ppDDT	<0.006	<0.006	<0.060	0.005[d]	<0.060	<0.006
Methoxychlor	<0.030	<0.030	0.300[a]	0.010[d]	<0.300[a]	<0.030
POLYCHLORINATED BIPHENYLS (μg/g)						
PCB-1260	<0.080	<0.080	0.116	<0.080	<0.080	<0.080
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	6.000	5.000	1400.000[a]	50.000[a]	140.000[a]	9.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
> = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 4.4-5 Summary of Sediment Sample Detections, Drainage Ditch, Nike Facility, Follow-on RI (page 1 of 1)

Sample ID	NKSE01	NKSE02	NKSE03	NKSE05	NKSE06	NKSE07	NKSE08
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Date	12/02/94	12/02/94	12/02/94	12/15/94	12/15/94	12/15/94	12/15/94
INORGANICS (µg/g)							
Lead-XRF	855	238	46.8	315	<25	<25	<25
Lead	NA	NA	NA	NA	NA	NA	33.6
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
No detections above reporting limit							

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed

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Table 4.4-6 Summary of Sediment Sample Detections Associated with Sediment Samples NISD10 and NISD11, Nike Facility, Follow-on RI (page 1 of 1)

Sample ID	NKSE04
Sample Depth (ft bgs)	0.0
Sample Date	11/20/94

SEMIVOLATILE ORGANICS (µg/g)

Polyaromatic Hydrocarbons

No detections above reporting limit

µg/L = microgram per Liter

Table 4.4-7 Summary of Soil Boring Sample Detections, Drainage Ditch, Nike Facility, Follow-on RI (page 1 of 3)

Sample ID	NKSB19	NKSB19	NKSB20	NKSB20	NKSB21	NKSB21	NKSB25
Sample Depth (ft bgs)	0.0	1.7	0.0	1.7	0.0	1.7	0.0
Sample Date	12/15/94	12/15/94	12/15/94	12/15/94	12/15/94	12/15/94	01/09/95
INORGANICS (µg/g)							
Lead-XRF	827	<25	1200	<25	924	<25	<25
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
Benzo(a)anthracene	<30[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Benzo(a)pyrene	<30[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Benzo(b,k)fluoranthene	<30[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Benzo(g,h,i)perylene	<30[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Chrysene	<30[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Fluoranthene	56.2[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Phenanthrene	<30[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3
Pyrene	54.6[a]	<0.3	<30[a]	<3[a]	<30[a]	<0.3	<0.3

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample

Table 4.4-7 Summary of Soil Boring Sample Detections, Drainage Ditch, Nike Facility, Follow-on RI (page 2 of 3)

Sample ID	NKSB25	NKSB26	NKSB26	NKSB27	NKSB27	NKSB28	NKSB28
Sample Depth (ft bgs)	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Sample Date	01/09/95	01/09/95	01/09/95	01/09/95	01/09/95	01/09/95	01/09/95
INORGANICS (µg/g)							
Lead-XRF	<25	64.2	<25	172	<25	<25	<25
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
Benzo(a)anthracene	<0.3	<0.3	<0.3	1.35	<0.3	<0.3	<0.3
Benzo(a)pyrene	<0.3	<0.3	<0.3	1.6	<0.3	<0.3	<0.3
Benzo(b,k)fluoranthene	<0.3	<0.3	<0.3	3.44	<0.3	<0.3	<0.3
Benzo(g,h,i)perylene	<0.3	<0.3	<0.3	0.48	<0.3	<0.3	<0.3
Chrysene	<0.3	<0.3	<0.3	2.21	<0.3	<0.3	<0.3
Fluoranthene	<0.3	<0.3	<0.3	3.44	<0.3	<0.3	<0.3
Phenanthrene	<0.3	<0.3	<0.3	1.35	<0.3	<0.3	<0.3
Pyrene	<0.3	<0.3	<0.3	5.29	<0.3	<0.3	<0.3

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample

Table 4.4-7 Summary of Soil Boring Sample Detections, Drainage Ditch, Nike Facility, Follow-on RI (page 3 of 3)

Sample ID	NKSB29	NKSB29	NKSB30	NKSB30
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0
Sample Date	04/10/95	04/10/95	04/10/95	04/10/95
INORGANICS (µg/g)				
Lead-XRF	NA	NA	NA	NA
SEMIVOLATILE ORGANICS (µg/g)				
Polyaromatic Hydrocarbons				
Benzo(a)anthracene	<0.3	<0.3	<0.3	<0.3
Benzo(a)pyrene	<0.3	<0.3	<0.3	<0.3
Benzo(b,k)fluoranthene	<0.3	<0.3	<0.3	<0.3
Benzo(g,h,i)perylene	<0.3	<0.3	<0.3	<0.3
Chrysene	<0.3	<0.3	<0.3	<0.3
Fluoranthene	<0.3	<0.3	<0.3	<0.3
Phenanthrene	<0.3	<0.3	<0.3	<0.3
Pyrene	<0.3	<0.3	<0.3	<0.3

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample

Table 4.4-8 Summary of Soil Boring Sample Detections Associated with Boring NKSB01, Nike Facility, Follow-on RI (page 1 of 2)

Sample ID	NKSB03	NKSB03	NKSB04	NKSB04	NKSB05	NKSB05	NKSB06
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0	0.0	2.0	0.0
Sample Date	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94
INORGANICS (µg/g)							
Zinc-XRF	90.9	<36	180	97.7	<36	<36	141
Zinc	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
Fluoranthene	<0.3	<0.3	5.4[a]	<3[a]	<0.3	<0.3	<0.3
Phenanthrene	<0.3	<0.3	5.16[a]	<3[a]	<0.3	<0.3	<0.3
Pyrene	<0.3	<0.3	5.16[a]	<3[a]	<0.3	<0.3	<0.3

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample

Table 4.4-8 Summary of Soil Boring Sample Detections Associated with Boring NKSB01, Nike Facility, Follow-on RI (page 2 of 2)

Sample ID	NKSB06	NKSB22	NKSB22	NKSB23	NKSB23	NKSB24	NKSB24
Sample Depth (ft bgs)	2.0	0.0	1.7	0.0	1.7	0.0	1.7
Sample Date	11/30/94	12/21/94	12/21/94	12/21/94	12/21/94	12/21/94	12/21/94
INORGANICS (µg/g)							
Zinc-XRF	<36	NA	NA	NA	NA	NA	NA
Zinc	26.2	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
Fluoranthene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Phenanthrene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Pyrene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample

Table 4.4-9 Summary of Soil Boring Sample Detections Associated with Sediment Samples NISD10 and NISD11, Nike Facility, Follow-on RI (page 1 of 2)

Sample ID	NKSB07	NKSB07	NKSB09	NKSB09	NKSB10	NKSB10	NKSB16
Sample Depth (ft bgs)	0.5	2.5	0.0	2.0	0.0	2.0	0.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	12/15/94
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
No detections above reporting limit							

µg/g = microgram per gram

Table 4.4-9 Summary of Soil Boring Sample Detections Associated with Sediment Samples NISD10 and NISD11, Nike Facility, Follow-on RI (page 2 of 2)

Sample ID	NKSB17	NKSB18
Sample Depth (ft bgs)	0.0	0.0
Sample Date	12/15/94	12/15/94
SEMIVOLATILE ORGANICS (µg/g)		
Polyaromatic Hydrocarbons		
No detections above reporting limit		

µg/g = microgram per gram

Table 4.4-10 Summary of Surface-Water Sample Detections, Nike Facility, Initial RI

Site ID	NISW01	NISW02	NISW03
Sample Date	09/26/90	10/09/90	10/09/90
INORGANICS (μg/L)			
Antimony	268	281	77.2
Arsenic	4.98	<2.35	<2.35
Barium	21.5	24.1	70.7
Calcium	28,100	52,600	29,900
Cyanide	<5.00	8.30	<5.00
Magnesium	28,400	27,800	26,800
Manganese	14.5	<9.67	63.2
Potassium	2,780	5,360	1,970
Selenium	<2.53	5.89	4.03
Sodium	56,000[a]	52,300	43,600
VOLATILE ORGANICS			
No detections above certified reporting limit			
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			
PCBs* (μg/L)			
PCB1260	1	<0.2	<0.2

μg/L = micrograms per liter
< = less than certified reporting limit
[a] = diluted sample
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 4.4-11 Summary of Surface-Water Sample Detections, Nike Facility, Follow-on RI (page 1 of 3)

Sample ID	NKSW01	NKSW01	NKSW02	NKSW02	NKSW03	NKSW03
Sample Depth (ft bgs)	12.0	14.0	0.5	1.5	1.5	4.0
Sample Date	01/09/95	11/10/94	11/10/94	01/09/95	01/09/95	11/10/94
INORGANICS (µg/L)						
Aluminum	NA	56.0[f]	58.0[f]	NA	NA	55.0[f]
Antimony	NA	126[f]	152[f]	NA	NA	15.6[f]
Antimony (F)	NA	139[a]	146[a]	NA	NA	26.5
Arsenic	NA	4.83	1.89	NA	NA	<1.70
Arsenic (F)	NA	4.50	1.70	NA	NA	<1.70
Barium	NA	32.0	1100	NA	NA	61.0
Barium (F)	NA	23.0	874	NA	NA	54.0
Beryllium	NA	1.00[f]	2.00[f]	NA	NA	<1.00
Cadmium	NA	<3.00	22.0[f]	NA	NA	<3.00
Calcium	NA	28700	45600	NA	NA	23400
Calcium (F)	NA	29600	42800	NA	NA	24000
Chromium	NA	5.00	6.00	NA	NA	<5.00
Copper	NA	2.72[f]	3.36[f]	NA	NA	1.64[f]
Copper (F)	NA	11.4	6.25	NA	NA	9.67
Iron	NA	407	77.0[f]	NA	NA	256
Lead	NA	24.3	9.36	NA	NA	8.86
Lead (F)	NA	<0.735	1.54	NA	NA	0.930
Magnesium	NA	31800	25700	NA	NA	22600
Magnesium (F)	NA	31400	22600	NA	NA	22300
Manganese	NA	68.0	42.0	NA	NA	15.0
Manganese (F)	NA	9.00	30.0	NA	NA	<6.00
Mercury	NA	0.500[f]	0.500[f]	NA	NA	0.500[f]
Potassium	NA	3890	4650	NA	NA	1940
Potassium (F)	NA	3160	3500	NA	NA	1780
Silver	NA	<2.00[p]	5.00[f]	NA	NA	<2.00[p]

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 4.4-11 Summary of Surface-Water Sample Detections, Nike Facility, Follow-on RI (page 2 of 3)

Sample ID	NKSW01	NKSW01	NKSW02	NKSW02	NKSW03	NKSW03
Sample Depth (ft bgs)	12.0	14.0	0.5	1.5	1.5	4.0
Sample Date	01/09/95	11/10/94	11/10/94	01/09/95	01/09/95	11/10/94
INORGANICS (µg/L)						
Sodium	NA	52500	40700	NA	NA	34700
Sodium (F)	NA	51900	35800	NA	NA	34800
Zinc	NA	70.0	120	NA	NA	48.0
Zinc (F)	NA	<4.00	18.0	NA	NA	12.0
MISCELLANEOUS PARAMETERS (µg/L)						
Alkalinity (Total as CaCO3)	NA	237000	244000	NA	NA	158000
Bicarbonate Alkalinity	NA	237000	244000	NA	NA	158000
Chloride	NA	52500	35500	NA	NA	46300
Nitrate	NA	222	<41.0	NA	NA	254
Sulfate	NA	31200	51200	NA	NA	27200
Total Dissolved Solids	NA	414000[f]	392000[f]	NA	NA	282000
VOLATILE ORGANICS (µg/L)						
1,2-Dichloroethane	<0.456	NA	NA	1.20[n]	<0.456	NA
SEMIVOLATILE ORGANICS (µg/L)						
Bis(2-ethylhexyl) phthalate	NA	<2.34	720[a]	NA	NA	<2.34
ORGANOCHLORINE PESTICIDES (µg/L)						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [redacted]omaly observed
[n] = estimated value
[p] = unreliable data

Table 4.4-11 Summary of Surface-Water Sample Detections, Nike Facility, Follow-on RI (page 3 of 3)

Sample ID	NKSW01	NKSW01	NKSW02	NKSW02	NKSW03	NKSW03
Sample Depth (ft bgs)	12.0	14.0	0.5	1.5	1.5	4.0
Sample Date	01/09/95	11/10/94	11/10/94	01/09/95	01/09/95	11/10/94
POLYCHLORINATED BIPHENYLS (µg/L)						
No detections above reporting limit						
CHLORINATED HERBICIDES (µg/L)						
No detections above reporting limit						
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-diesel fraction	NA	<50	84000[a]	NA	NA	<50
TPH-gas fraction	NA	<50	480[m]	NA	NA	<50

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 4.4-12 Summary of Groundwater Sample Detections, Nike Facility, Supplemental RI
(page 1 of 2)

Sample ID Sample Date	NKGW01 09/01/92 (Filtered Inorganics)	NKGW01 09/01/92 (Unfiltered Inorganics)
INORGANICS (μg/L)		
Aluminum	<141.000	3760.000
Arsenic	7.140	8.420
Barium	43.300	114.000
Calcium	44100.000	48600.000
Chromium	52.200	91.600
Cobalt	<25.000	90.400
Iron	<38.800	4390.000
Lead	<1.260	11.000
Magnesium	72900.000	89100.000
Manganese	81.900	1030.000
Nickel	<34.300	943.000
Potassium	7980.000	8180.000
Selenium	<3.020	3.510
Sodium	105000.000	110000.000
Vanadium	19.700	33.400
Zinc	<21.100	60.600
MISCELLANEOUS PARAMETERS (μg/L)		
Alkalinity		
Total	490000.000	
Bicarbonate	480000.000	
Carbonate	9870.000	
Hydroxide	109.000	
Chloride	65000.000[a]	
Fluoride	946.000[d]	
Nitrate	3900.000[a]	
Sulfate	55500.000	
TDS	715000.000	

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination

Table 4.4-12 Summary of Groundwater Sample Detections, Nike Facility, Supplemental RI
(page 2 of 2)

Sample ID	NKGW01
Sample Date	09/01/92
VOLATILE ORGANICS	
No detections above certified reporting limit or method detection limit	
SEMIVOLATILE ORGANICS (μg/L)	
Bis(2-ethylhexyl)phthalate	1.200[f]
ORGANOCHLORINE PESTICIDES	
No detections above method detection limit	
POLYCHLORINATED BIPHENYLS	
No detections above certified reporting limit	
CHLORINATED HERBICIDES	
No detections above method detection limit	
TOTAL PETROLEUM HYDROCARBONS	
No detections above method detection limit	

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination

Table 4.4-13 Summary of Groundwater Sample Detections, Nike Facility, Follow-on RI (page 1 of 3)

Sample ID	NKGW01	NKGW01	NKGW02	NKGW03	NKGW04	NKGW05
Sample Depth (ft bgs)	36.0	45.0	17.0	14.0	17.0	30.0
Sample Date	01/09/95	11/10/94	04/05/95	04/06/95	04/05/95	04/05/95
INORGANICS (µg/L)						
Aluminum	NA	751	19200	4350	5030	14400
Aluminum (F)	NA	<25.0	<100	181[n]	<100	<100
Antimony (F)	NA	10.1	6.4	7.7	6.3	5.7
Arsenic	NA	1.89	<5	<5	<5	<5
Arsenic (F)	NA	2.30	<5[n]	<5[n]	<5[n]	<5
Barium	NA	98.0	134	<50	<50	114
Barium (F)	NA	92.0	<50	<50[n]	<50	<50
Beryllium	NA	1.00[f]	<3	<3	<3	<3
Cadmium	NA	6.00[f]	<5	<5	<5	<5
Calcium	NA	26100	17800	13400	25000	30500
Calcium (F)	NA	27900	16300	13600[n]	24600	27400
Chromium	NA	32.0	229	18.5	50.4	159
Chromium (F)	NA	11.0	<10	<10[n]	<10	<10
Copper	NA	<1.00	20	5	4.5	16.4
Copper (F)	NA	7.79	2.9	4[n]	178	4.8
Cyanide	NA	<5.00[n]	<4	<4	<4	6.28
Iron	NA	1870	34300	5880	7870	34900
Iron (F)	NA	<8.00	<100	187[n]	<100	<100
Lead	NA	1.03[f]	3.4	<3	<3	<3
Magnesium	NA	64500	37900	20500	37500	61100
Magnesium (F)	NA	57700	29800	19600[n]	35200	52700
Manganese	NA	43.0	389	97.5	122	484
Manganese (F)	NA	<6.00	22.1	<15[n]	<15	71.9
Mercury	NA	8.60	<0.2	<0.2[n]	<0.2	<0.2
Nickel	NA	166 [an]	413	30.1	130	341

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ed value
[p] = unreliable data

Table 4.4-13 Summary of Groundwater Sample Detections, Nike Facility, Follow-on RI (page 2 of 3)

Sample ID	NKGW01	NKGW01	NKGW02	NKGW03	NKGW04	NKGW05
Sample Depth (ft bgs)	36.0	45.0	17.0	14.0	17.0	30.0
Sample Date	01/09/95	11/10/94	04/05/95	04/06/95	04/05/95	04/05/95
INORGANICS (µg/L)						
Nickel (F)	NA	78.3	<11.7	<11.7[n]	<11.7	19.5
Potassium	NA	1580	2900	1360	2600	2950
Potassium (F)	NA	770	1430	1420[n]	2020	2060
Silver	NA	<2.00[p]	0.2	<0.1	<0.1	0.1
Silver (F)	NA	<2.00	0.2[n]	0.1[n]	<0.1[n]	<0.1[n]
Sodium	NA	64600	43700	22000	42400	50800
Sodium (F)	NA	62700	46700	22100[n]	47900	53600
Vanadium	NA	10.0	59.6	<25	<25	62.8
Vanadium (F)	NA	4.00	<25	<25[n]	<25	<25
Zinc	NA	29.0	57.6	<20	<20	58
Zinc (F)	NA	14.0	<20	<20[n]	165	<20
MISCELLANEOUS PARAMETERS (µg/L)						
Alkalinity (Total as CaCO3)	NA	418000	80000	88000[n]	184000	222000
Bicarbonate Alkalinity	NA	418000	79900	87900[n]	182000	221000
Carbonate Alkalinity	NA	<1000	8.5	<5[n]	44.5	31
Hydroxide Alkalinity	NA	<1000	128	61.6[n]	1530	1280
Chloride	NA	42100	73100[a]	8600	49900[a]	63600
Nitrate	NA	363	7860[a]	9860[a]	1170	6430
Sulfate	NA	45900	37900	16900	39800	49000
Total Dissolved Solids	NA	538000	302000	274000	326000	360000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 4.4-13 Summary of Groundwater Sample Detections, Nike Facility, Follow-on RI (page 3 of 3)

Sample ID	NKGW01	NKGW01	NKGW02	NKGW03	NKGW04	NKGW05
Sample Depth (ft bgs)	36.0	45.0	17.0	14.0	17.0	30.0
Sample Date	01/09/95	11/10/94	04/05/95	04/06/95	04/05/95	04/05/95
VOLATILE ORGANICS (µg/L)						
Chloroform	1.01	NA	<0.5	<0.5	<0.5	<0.5
SEMIVOLATILE ORGANICS (µg/L)						
Bis(2-ethylhexyl) phthalate	NA	6.45[f]	<20.7	<20.7	<20.7	<20.7
ORGANOCHLORINE PESTICIDES (µg/L)						
No detections above reporting limit						
POLYCHLORINATED BIPHENYLS (µg/L)						
No detections above reporting limit						
CHLORINATED HERBICIDES (µg/L)						
No detections above reporting limit						
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-gas fraction	NA	<50	<10	11	<10	<10
TPH-diesel fraction						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ted value
[p] = unreliable data

Table 5.4-1 Summary of Wipe Sample Detections, Consolidated Motor Pool Area, Initial RI (page 1 of 2)

Site ID	634W01	634W02	634W03	640W01	640W02
Sample Date	11/09/90	11/09/90	11/09/90	11/14/90	11/14/90
INORGANICS ($\mu g/cm^2$)					
Aluminum	2	2	0.1	0.3	0.2
Barium	0.04	0.06	<0.006	0.06	0.02
Cadmium	<0.006	<0.006	<0.006	<0.006	<0.006
Calcium	2	10	0.3	0.6	0.2
Chromium	0.02	0.02	<0.006	0.01	<0.006
Copper	<0.02	<0.02	<0.02	0.04	<0.02
Iron	4	4	0.1	3	0.7
Lead	0.020	0.02	0.002	0.03	0.007
Magnesium	0.6	0.8	0.07	0.11	0.06
Manganese	0.07	0.06	<0.006	0.02	0.006
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	0.009	0.013	<0.006	<0.006	<0.006
Potassium	1	2	<0.6	<0.6	<0.6
Sodium	2	3	0.3	0.6	0.2
Vanadium	<0.006	0.006	<0.006	<0.006	<0.006
Zinc	0.2	0.2	0.06	0.08	<0.02
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)					
Bis(2-ethylhexyl) phthalate	<0.01	<0.01	<0.01	<0.01	<0.01
Di-n-butylphthalate	<0.01	<0.01	<0.01	<0.01	0.03

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
[a] = diluted sample

Table 5.4-1 Summary of Wipe Sample Detections, Consolidated Motor Pool Area, Initial RI (page 2 of 2)

Site ID	640W03	640W04	643W01	643W02	643W03
Sample Date	11/14/90	11/14/90	11/14/90	11/14/90	11/14/90
INORGANICS ($\mu g/cm^2$)					
Aluminum	0.4	0.3	1	1	1
Barium	0.04	0.05	0.2	0.3	0.7
Cadmium	<0.006	<0.006	<0.006	<0.006	0.006
Calcium	0.7	0.6	2	2	3
Chromium	0.008	0.01	0.02	0.02	0.03
Copper	0.02	<0.02	<0.02	0.03	0.06
Iron	4	2	2	2	2
Lead	1	0.6	0.8	1[a]	40[a]
Magnesium	0.2	0.02	0.3	0.4	0.4
Manganese	0.02	0.02	0.03	0.03	0.03
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.001
Nickel	<0.006	<0.006	<0.006	0.009	0.011
Potassium	<0.6	<0.6	<0.6	<0.6	<0.6
Sodium	0.6	0.6	0.3	0.8	0.8
Vanadium	<0.006	<0.006	<0.006	<0.006	<0.006
Zinc	0.1	0.06	0.4	0.6	1
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)					
Bis(2-ethylhexyl) phthalate	0.04	<0.01	<0.01	<0.01	<0.01
Di-n-butylphthalate	<0.01	<0.01	<0.01	<0.01	<0.01

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
[a] = diluted sample

Table 5.4-2 Summary of Sediment Sample Detections, Buildings 637 and 640, Initial RI (page 1 of 2)

Sample ID	637SD01	637SD02	637SD03	637SD04	637SD05	640SD01
Sample Date	11/12/90	11/12/90	11/13/90	11/13/90	11/12/90	11/13/90
INORGANICS (μg/g)						
Aluminum	10,800	9,490	10,100	10,100	7,940	7,140
Barium	87.1	426	171	81.7	46.9	221
Cadmium	<1.20	<1.20	<1.20	<1.20	<1.20	6.50
Calcium	10,400	5,630	7,650	8,260	5,580	8,140
Chromium	52.2	136	38.4	171	104	80.8
Cobalt	9.32	7.20	7.25	14.8	8.66	6.67
Copper	36.3	49.3	88.6	33.6	27.8	408
Iron	24,000	22,000	19,200	31,900	14,700	22,600
Lead	78.4	512	64.6	247	107	371
Magnesium	10,700	6,310	7,170	14,800	11,500	7,410
Manganese	307	270	305	379	150	201
Mercury	<0.050	0.184	0.129	0.106	<0.050	0.204
Nickel	43.7	37.1	43.1	142	96.3	62.9
Potassium	921	1,010	872	1,450	995	725
Sodium	295	230	412	294	202	349
Vanadium	38.8	30.7	28.7	49.6	24.0	25.0
Zinc	1,030	533	285	449	861	645

μg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
a = diluted sample
* = analyzed as total 1,2-Dichloroethene

Table 5.4-2 Summary of Sediment Sample Detections, Buildings 637 and 640, Initial RI (page 2 of 2)

Sample ID Sample Date	637SD01 11/13/90	637SD02 11/13/90	637SD03 11/13/90	640SD04 11/13/90	637SD05 11/13/90	640SD01 11/13/90
VOLATILE ORGANICS (μg/g)						
Benzene	<0.10	0.21	<0.10	<0.10	<0.10	2.5
Chlorobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	0.32
Chloroethene/vinyl chloride	<1.8	<1.8	<1.8	<1.8	<1.8	2.5
1,2-Dichloroethene*	<0.32	<0.32	<0.32	<0.32	<0.32	1.9
1,3-Dimethylbenzene/ m-Xylene	<0.23	<0.23	<0.23	<0.23	<0.23	GT 10
Ethylbenzene	<0.19	<0.19	0.61	<0.19	<0.19	11
Tetrachloroethene	<0.16	<0.16	<0.16	<0.16	<0.16	0.30
Toluene	<0.10	0.25	1.3	<0.10	<0.10	GT 10
Trichloroethene	<0.23	<0.23	<0.23	<0.23	<0.23	0.50
Xylenes	<0.78	<0.78	1.2	<0.78	<0.78	GT 20
SEMIVOLATILE ORGANICS (μg/g)						
Bis(2-ethylhexyl) phthalate	<4.8[a]	<4.8[a]	5[a]	<0.48	<0.48	GT 30[a]
Fluoranthene	<0.32[a]	<0.3[a]	<0.16[a]	0.34	0.043	<0.16[a]
2-Methylnaphthalene	<0.32[a]	3[a]	0.4[a]	<0.032	<0.032	6[a]
Phenanthrene	1.4	2[a]	<0.16[a]	0.66	0.25	4[a]
Pyrene	<0.83[a]	<0.83[a]	<0.42[a]	0.22	<0.083	<0.42[a]
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
	80	80	30,000[a]	600[a]	1,000[a]	100,000[a]

μg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
a = diluted sample
* = analyzed as total 1,2-Dichloroethene

Table 5.4-3 Summary of Sediment Sample Detections, Building 637 Area, Montgomery Watson*

Sample ID Sample Date	637SD01A 03/92	637SD03A 03/92	637SD05A 03/92
INORGANICS (μg/g)			
Cadmium	0.8	1.2	<0.5
Chromium	48	47	470
Nickel	41	56	200
Lead	100	120	1,500
Zinc	180	670	460
VOLATILE ORGANICS (μg/g)			
Benzene	0.1	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01
m,p-Xylenes	<0.01	<0.01	<0.01
Toluene	<0.01	0.03	<0.01
SEMIVOLATILE ORGANICS (μg/g)			
Benzo(a)anthracene	<1.65	<1.65	37
Benzo(a)pyrene	<1.65	<1.65	41
Benzo(b)fluoranthene	<1.65	<1.65	53
Benzo(g,h,i)perylene	<1.65	<1.65	11
Benzo(k)fluoranthene	<1.65	<1.65	48
Chrysene	<1.65	<1.65	37
Fluoranthene	<1.65	<1.65	37
Indeno(1,2,3-c,d)pyrene	<1.65	<1.65	15
Phenanthrene	<1.65	<1.65	17
Pyrene	<1.65	<1.65	43
ORGANOCHLORINE PESTICIDES (μg/g)			
Toxaphene	<0.02	<0.02	0.42
TOTAL PETROLEUM HYDROCARBONS (μg/g)			
TPH-diesel fraction	<20	190	62
TPH-gas fraction	<0.20	2.3	0.28

μg/g = micrograms per gram
< = less than method detection limit
*(JMM, 1992)

Table 5.4-4 Summary of Stormwater Sample Detections from Storm Drains, Building 637 Area, Montgomery Watson*

Sample ID	637SD02A	637SD04A
Sample Date	03/92	03/92
VOLATILE ORGANICS (μg/L)		
Benzene	16	<0.5
Ethylbenzene	10	<0.5
m,p-Xylenes	8.4	<0.5
Toluene	1.7	<0.5
SEMIVOLATILE ORGANICS	ND	ND
TOTAL PETROLEUM HYDROCARBONS (μg/L)		
TPH - diesel fraction	<250	<250
TPH - gas fraction	90	<0.5

μg/L = micrograms per liter
< = less than method detection limit
* (JMM, 1992)

Table 5.4-5 Summary of Soil Boring Sample Detections, Consolidated Motor Pool Area, Initial RI

Sample ID	640SO01A	640SO01B	640SO02A	640SO02B
Sample Depth (ft bgs)	2.0	4.8	2.0	4.5
Sample Date	11/13/90	11/13/90	10/22/90	10/22/90
INORGANICS (μg/g)				
Aluminum	9,360	5,070	11,600	8,730
Barium	59.8	17.3	50.4	27.6
Calcium	4,990	3,470	4,180	7,180
Chromium	65.0	52.6	252	412
Cobalt	10.4	7.82	32.7	34.3
Copper	10.0	4.40	11.1	6.64
Iron	21,300	14,100	28,400	30,500
Magnesium	4,890	7,360	66,000[a]	67,700
Manganese	288	143	376	403
Nickel	46.1	70.3	422	570
Potassium	978	461	991	772
Sodium	131	113	187	198
Vanadium	45.3	28.1	39.6	32.3
Zinc	32.7	16.9	40.4	22.3
VOLATILE ORGANICS (μg/g)				
Trichlorofluoromethane*	<0.23	0.25	<0.23	<0.23
SEMIVOLATILE ORGANICS				
No detections above certified reporting limit				
TOTAL PETROLEUM HYDROCARBONS (μg/g)	50	30	20	<10

* = not on target analyte list: additional information supplied by lab
μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample

Table 5.4-6 Summary of Soil Boring Sample Detections, Building 642, Follow-on RI (page 1 of 1)

Sample ID	642SB01	642SB01	642SB02	642SB03	642SB04
Sample Depth (ft bgs)	0.5	3.0	0.5	0.5	0.5
Sample Date	12/16/94	12/16/94	01/10/95	01/10/95	01/10/95
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH (immunoassay)	>99[a]	<9.7	<9.8	<100[a]	<98[a]

µg/g = microgram per gram
< = less than reporting limit
> = greater than reporting limit
[a] = diluted sample

Table 5.4-7 Summary of Surface Soil Sample Detections, POL and Consolidated Motor Pool Areas, Initial RI

Sample ID	638SS01	638SS02	638SS03	643SS01	643SS02	643SS03
Sample Date	10/15/90	10/15/90	10/15/90	10/12/90	10/12/90	10/12/90
INORGANICS (μg/g)						
Aluminum	8,880	8,800	11,400	25,300	17,800	9,340
Arsenic	2.97	<2.50	<2.50	6.79	<2.50	3.73
Barium	103	119	131	188	192	138
Beryllium	<0.427	<0.427	<0.427	0.662	<0.427	<0.427
Cadmium	2.36	1.92	2.78	1.45	4.98	4.71
Calcium	6,470	5,380	6,530	7,720	8,650	5,430
Chromium	71.6	64.3	70.1	174	112	232
Cobalt	5.34	6.44	7.48	30.2	36.0	16.5
Copper	59.3	94.4	77.6	41.0	54.3	84.3
Iron	17,600	19,500	21,600	68,000[a]	36,600	30,300
Lead	316	307	348	323	347	1,400[a]
Magnesium	4,360	5,640	5,980	11,200	11,400	22,200
Manganese	218	254	263	770	1,300[a]	419
Mercury	0.147	0.422	0.479	0.181	0.073	0.230
Nickel	33.5	43.0	47.3	225	137	238
Potassium	1,330	1,260	1,610	4,100	2,020	1,280
Silver	<0.803	<0.803	<0.803	<0.803	<0.803	3.33
Sodium	460	420	554	214	223	425
Vanadium	34.4	35.5	44.3	78.6	78.0	44.6
Zinc	270	353	328	136	226	407
VOLATILE ORGANICS (μg/g)						
No detections above certified reporting limit						
SEMIVOLATILE ORGANICS (μg/g)						
Bis(2-ethylhexyl) phthalate	9[a]	<4.8[a]	<4.8[a]	3.4	5.5	GT 6.2
Chrysene	<0.32[a]	<0.32[a]	<0.32[a]	<0.032	<0.032	0.088
Fluoranthene	<0.32[a]	<0.32[a]	<0.32[a]	<0.032	<0.032	0.16
Phenanthrene	<0.32[a]	<0.32[a]	<0.32[a]	<0.032	<0.032	0.21
TOTAL PETROLEUM HYDROCARBONS (μg/g)	80,000[a]	100,000[a]	90,000[a]	20	60	600[a]

μg/g = micrograms per gram < = less than certified reporting limit GT = greater than upper certified reporting limit [a] = diluted sample

Table 5.4-8 Summary of Soil Boring Sample Detections, Building 643, Supplemental RI (page 1 of 2)

Sample ID	643SB01	643SB01	643SB02	643SB02
Sample Depth (ft bgs)	2.0	5.0	2.0	5.0
Sample Date	08/17/92	08/17/92	08/18/92	08/18/92
INORGANICS (μg/g)				
Aluminum	9300.000[a]	14000.000[a]	18000.000[a]	14000.000[a]
Arsenic	2.850	3.450	3.890	4.920
Barium	183.000	87.400	102.000	85.500
Beryllium	1.070	1.190	1.500	1.170
Cadmium	1.360	0.714	<0.515	<0.515
Calcium	3610.000	2410.000	16000.000	2560.000
Chromium	69.900	92.600	121.000	101.000
Cobalt	39.700	41.700	19.500[e]	14.000[e]
Copper	62.400	21.800	35.000	14.500
Iron	20000.000[a]	26000.000[a]	39000.000[a]	28000.000[a]
Lead	140.000[a]	5.740	140.000	3.850
Magnesium	4220.000	5860.000	18000.000	5380.000
Manganese	805.000	457.000	618.000	287.000
Mercury	0.055	0.049	0.078	0.041
Nickel	68.800	112.000	191.000	114.000
Potassium	860.000	720.000	941.000	645.000
Selenium	0.455	0.550	1.370	0.535
Silver	0.971	0.983	2.720	1.650
Sodium	200.000[k]	255.000[k]	183.000[k]	268.000[k]
Thallium	75.300[k]	112.000[k]	148.000[k]	113.000[k]
Vanadium	51.200	74.800	125.000	88.500
Zinc	93.300	46.500	142.000	39.700
VOLATILE ORGANICS				
No detections above certified reporting limit				
SEMIVOLATILE ORGANICS (μg/g)				
Butylbenzylphthalate	0.180	<0.033	0.047	<0.033
Phenanthrene	0.048	<0.033	<0.033	<0.033
Pyrene	0.069	<0.033	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane
a = diluted sample
c = all detections are confirmed
e = estimated value - method 99
k = data not verified by other lab results

Table 5.4-8 Summary of Soil Boring Sample Detections, Building 643, Supplemental RI (page 2 of 2)

Sample ID	643SB01	643SB01	643SB02	643SB02
Sample Depth (ft bgs)	2.0	5.0	2.0	5.0
Sample Date	08/17/92	08/17/92	08/18/92	08/18/92
ORGANOCHLORINE PESTICIDES[c] (μg/g)				
ppDDT	<0.006	0.014	<0.006	<0.006
POLYCHLORINATED BIPHENYLS				
No detections above certified reporting limit				
CHLORINATED HERBICIDES				
No detections above method detection limit				
TOTAL PETROLEUM HYDROCARBONS (μg/g)				
TPH-diesel fraction	3.000	14.000	8.000	1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane
a = diluted sample
c = all detections are confirmed
e = estimated value - method 99
k = data not verified by other lab results

Table 5.4-9 Summary of Surface Soil Sample Detections, POL and Consolidated Motor Pool Areas, Feasibility Study (page 1 of 1)

Sample ID	643SS04	643SS05	643SS06
Sample Depth (ft bgs)	0.0	0.0	0.0
Sample Date	11/02/92	11/02/92	11/03/92
INORGANICS (µg/g)			
Aluminum	10000	6500	5700
Arsenic	2.5	<1.2	1.1
Barium	90	330	86
Calcium	4700	4300	6800
Chromium	160	67	50
Cobalt	14	6	3.5
Copper	100	52	41
Iron	21000	14000	13000
Lead	450	440	490
Magnesium	14000	4500	4700
Manganese	350	280	270
Mercury	0.079	0.37	0.24
Nickel	200	50	40
Potassium	1000	640	1000
Sodium	130	110	150
Vanadium	46	33	29
Zinc	290	190	200
TOTAL PETROLEUM HYDROCARBONS (µg/g)			
TPH-diesel fraction	5.9	42	91
TPH-gas fraction			
No detections above reporting limit			

µg/L = microgram per Liter
< = less than reporting limit

Table 5.4-10 Summary of Soil Boring Sample Detections, Building 643, Follow-on RI (page 1 of 2)

Sample ID	643SB03	643SB03	643SB03	643SB04	643SB04	643SB05	643SB05
Sample Depth (ft bgs)	0.0	1.7	2.0	0.0	1.7	0.0	1.7
Sample Date	12/05/94	12/05/94	12/05/94	12/05/94	12/05/94	12/05/94	12/05/94
INORGANICS (µg/g)							
Lead-XRF	155	110	NA	<25	<25	994	177
Lead	NA	179	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	27800	NA	3970	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 5.4-10 Summary of Soil Boring Sample Detections, Building 643, Follow-on RI (page 2 of 2)

Sample ID	643SB06	643SS07	643SS08
Sample Depth (ft bgs)	0.5	0.0	0.0
Sample Date	01/09/95	12/20/94	12/20/94
INORGANICS (µg/g)			
Lead-XRF	<25	944	542
Lead	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)			
Total Organic Carbon	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-11 Summary of Soil Boring Sample Detections, POL Area, Initial RI

Sample ID	637SO01A	637SO01B	637SO02A	637SO03A	637SO03B	637SO04A	637SO04B	638SO01A	638SO01B
Sample Depth (ft bgs)	1.8	2.8	0.0	4.2	6.0	1.2	4.2	4.5	6.0
Sample Date	11/13/90	11/13/90	12/10/90	10/22/90	10/22/90	10/19/90	10/19/90	10/22/90	10/22/90
INORGANICS (μg/g)									
Aluminum	6,320	4,370	23,800	4,940	6,000	26,600	6,000	6,040	5,540
Arsenic	<2.50	<2.50	<2.50	<2.5	<2.5	2.83	<2.5	<2.5	<2.5
Barium	13.2	12.2	128	11.9	15.1	103	13.1	16.4	13.2
Beryllium	<0.427	<0.427	<0.427	<0.427	<0.427	0.652	<0.427	<0.427	<0.427
Calcium	2,120	2,900	22,800	3,070	4,230	3,930	4,660	4,540	3,700
Chromium	1,300[a]	39.1	49.1	63.8	29.9	110	35.0	62.6	36.8
Cobalt	70.3	5.96	30.3	7.34	5.50	20.7	8.13	9.15	4.45
Copper	10.0	<2.84	70.1	<2.84	<2.84	16.1	<2.84	<2.84	<2.84
Iron	45,700	10,300	43,700	12,200	10,800	41.1	12,200	13,700	10,400
Lead	<7.44	<7.44	19.3	<7.44	<7.44	9.97	<7.44	<7.44	<7.44
Magnesium	180,000[a]	6,950	11,400	8,720	4,220	6,670	7,230	16,600	4,400
Manganese	610	108	1,100	123	111	482	130	164	120
Mercury	<0.050	<0.050	0.076	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Nickel	1,390	46.5	52.2	76.5	27.4	66.7	71.4	112	29.3
Potassium	<131	455	1,220	613	835	1,910	696	680	800
Sodium	77.2	103	591	146	205	572	168	240	151
Vanadium	24.6	18.7	92.3	21.9	22.4	93.5	24.5	23.6	21.3
Zinc	14.2	13.2	69.0	15.2	14.9	49.5	14.8	14.2	14.7
VOLATILE ORGANICS (μg/g)									
Ethylbenzene	<0.19	<0.19	<0.19	1.4	20[a]	<0.19	<3.8[a]	<0.19	<0.19
Toluene	0.34	<0.10	<0.10	<0.10	<0.10	<0.10	<2.0[a]	<0.10	<0.10
SEMIVOLATILE ORGANICS (μg/g)									
Bis(2-ethylhexyl) phthalate	0.93	<0.48	<0.48	<0.48	<0.48	<0.48	<4.8[a]	<0.48	<0.48
1,3-Dimethylbenzene/ m-Xylene	0.34	<0.23	<0.23	<0.23	<0.23	<0.23	<4.6[a]	<0.23	<0.23
Fluorene	<0.065	<0.065	<0.065	<0.065	0.51	<0.065	<0.65[a]	<0.065	<0.065
2-Methylnapthalene	<0.032	<0.032	<0.032	1.0	9.0	<0.032	70[a]	<0.032	<0.032
Naphthalene	<0.74	<0.74	<0.74	1.7	9.5	<0.74	100[a]	<0.74	<0.74
Phenanthrene	<0.032	<0.032	<0.032	0.15	0.78	<0.032	<0.032[a]	<0.032	<0.032
Pyrene	<0.083	<0.083	<0.083	<0.083	0.14	<0.083	<0.83[a]	<0.083	<0.083
TOTAL PETROLEUM HYDROCARBONS (μg/g)	10	<10	200[a]	600[a]	4,000[a]	1,000[a]	4,000[a]	<10	<10

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample

Table 5.4-12 Summary of Soil Boring Sample Detections, Building 637 Area, Montgomery Watson* (page 1 of 2)

Sample ID	637SO05		637SO06		637SO07			637SO08		
Sample Date	03/03/92		03/03/92		03/03/92			03/03/92		
Sample Depth (ft bgs)	0.2	4	1	2	1	1.5	2	1	1.5	4
INORGANICS[a] (μg/g)										
Chromium	84	69	24	1,400	66	980	39	1,800	820	27
Nickel	56	55	12	1,600	99	1,800	41	2,300	2,500	25
Lead	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	53	35	24	20	31	54	21	30	24	20
VOLATILE ORGANICS (μg/g)										
Benzene	2.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<2.5[b]
Ethylbenzene	27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<2.5[b]
m,p-Xylenes	49	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<2.5[b]
o-Xylene	3.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<2.5[b]
Toluene	2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	11[b]
SEMIVOLATILE ORGANICS[1]										
No detections above method detection limit										
ORGANOCHLORINE PESTICIDES[1]										
No detections above method detection limit										
TOTAL PETROLEUM HYDROCARBONS (μg/g)										
TPH-diesel fraction	130	31	<10	<10	<10	<10	<10	<10	<10	19,000
TPH-gas fraction	200[b]	<0.2[b]	<0.2[b]	<0.2[b]	<0.2[b]	6.9[c]	<0.2[c]	<0.2	1.2[c]	1,500[b]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = Cadmium was analyzed but not detected above reporting limit (0.5 μg/g).
b = Sample analyzed two days past holding time limit
c = Sample analyzed one day past holding time limit
1 = analysis requested for all samples from Boring 637SO07 and the 1 ft bgs sample from Boring 637SO09

* (JMM, 1992)

Table 5.4-12 Summary of Soil Boring Sample Detections, Building 637 Area, Montgomery Watson* (page 2 of 2)

Sample ID:	637SO09				637SO10				
Sample Date	03/03/92				03/03/92				
Sample Depth (ft bgs)	1	2	2.5	3	1	1.5	2	2.5	3
INORGANICS[a] (μg/g)									
Chromium	180	62	160	57	32	72	1,100	61	26
Nickel	350	75	470	48	41	61	2,000	75	22
Lead	<10	<10	<10	<10	<10	36	<10	<10	<10
Zinc	120	51	47	52	92	48	20	22	16
VOLATILE ORGANICS (μg/g)									
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.5[b]
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.5[b]
m,p-Xylenes	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.5[b]
o-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.5[b]
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	12[b]
SEMIVOLATILE ORGANICS[1]									
No detections above method detection limit									
ORGANOCHLORINE PESTICIDES[1]									
No detections above method detection limit									
TOTAL PETROLEUM HYDROCARBONS (μg/g)									
TPH-diesel fraction	<10	<10	<10	<10	<10	<10	<10	<10	10,000
TPH-gas fraction	<0.2[c]	<0.2[c]	<0.2[b]	<0.2[c]	<0.2	1.5	0.77	<0.20[c]	4,000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = Cadmium was analyzed but not detected above reporting limit (0.5 μg/g)
b = Sample analyzed two days past holding time limit
c = Sample analyzed one day past holding time limit
1 = analysis requested for all samples from Boring 637SO07 and the 1 ft bgs sample from Boring 637SO09

* (JMM, 1992)

Table 5.4-13 Summary of Groundwater Sample Detections, POL and Consolidated Motor Pool Areas, Initial RI

Sample ID	637GW01	637GW02	637GW03	637GW04	637GW05
Sample Date	12/05/90	12/06/90	12/06/90	12/07/90	11/30/90
INORGANICS: filtered, except for cyanide (μg/L)					
Arsenic	3.07	<2.35	<2.35	<2.35	<2.35
Barium	46.1	4.82	20.5	4.87	6.43
Boron	NA	<230	<230	245	NA
Calcium	47,300	43,000	37,900	40,200	81,500
Iron	89.3	86.1	83.9	3,200	7,300
Magnesium	66,300	60,200	51,900	43,700	76,400
Manganese	1,070	86.3	221	1,440	1,160
Potassium	2,060	2,650	3,150	5,830	14,000
Selenium	<2.53	3.55	3.31	<2.53	<2.53
Sodium	130,000[a]	110,000[a]	140,000[a]	75,000[a]	99,000[a]
Zinc	<18.0	<18.0	<18.0	<18	53.1
VOLATILE ORGANICS					
No detections above certified reporting limit					
SEMIVOLATILE ORGANICS					
No detections above certified reporting limit					
TOTAL PETROLEUM HYDROCARBONS (μg/L)					
	200	<100	<100	200	100

μg/L = micrograms per liter
< = less than certified reporting limit
[a] = diluted sample

Table 5.4-14 Summary of Groundwater Sample Detections, Building 637 Area, Montgomery Watson* (page 1 of 2)

Sample ID Sample Date	637GW01 03/92	637GW02 03/92	637GW03 03/92	637GW04 03/92	637GW05 03/92	637-06 03/92
INORGANICS (μg/L)[a]						
Chromium[b]	58	9	40	5	5	8
Chromium[c]	55	<10	38	<10	<10	<10
Lead[b]	12	2	13	<2	3	3
Nickel[c]	120	<40	57	<40	40	<40
Zinc[c]	170	37	65	47	<20	<20
INORGANICS (filtered) (μg/L)						
Zinc[c]	<20	<20	<20	26	24	24
Lead[c]	<2	<2	<2	<2	<2	<2
VOLATILE ORGANICS (μg/L)						
1,1,2-Trichloroethane	<125	<5	<5	<2.5	<5	3
Acetone	<2,500	<10	<10	<50	<10	<50
Benzene	1,900	<0.5	<8	16	0.5	50
Ethylbenzene	950	<0.5	<0.5	<2.5	<0.5	<2.5
m,p-Xylenes	1,000	<0.5	0.8	2.9	<0.5	<2.5
o-Xylene	<125	<0.5	<0.5	<2.5	<0.5	<2.5
Toluene	<125	<0.5	<0.5	3.8	<0.5	<2.5
SEMIVOLATILE ORGANICS (μg/L)						
2,4-Dimethylphenol	13	<.5	<5	<5	<5	<5
2-Methylnaphthalene	22	<.5	<5	<5	<5	<5
Napthalene	100	<.5	<5	<5	<5	<5
ORGANOCHLORINE PESTICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/L)						
TPH-diesel fraction	5,300	<250	<250	580	270	840
TPH-gas fraction	8,200	<250	80	380	90	650

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = Cadmium was analyzed but not detected above reporting limit (GFAA reporting limit is 0.001 mg/L; ICAP reporting limit is 0.005 mg/L)
[b] = Measured by Graphite Furnace atomic absorption
[c] = Measured by ICAP
[d] = Cadmium, chromium, and nickel were analyzed but were not detected above reporting limits (Cd: 0.001 mg/L, Cr: 0.005 mg/L, Ni: 0.04 mg/L
* (JMM, 1992)

Table 5.4-14 Summary of Groundwater Sample Detections, Building 637 Area, Montgomery Watson* (page 2 of 2)

Sample ID Sample Date	637-07 03/92	637-08 03/92	637-09 03/92	637-10 03/92	LF7GW01 03/92
INORGANICS (μg/L)[a]					
Chromium[b]	70	<5	55	<5	39
Chromium[c]	73	<10	56	<10	13
Lead[b]	21	2	8	3	2
Nickel[c]	200	<40	83	<40	<40
Zinc[c]	89	<20	60	21	<20
INORGANICS (filtered) (μg/L)[d]					
Zinc[c]	<20	25	39	33	<20
Lead[c]	<2	<2	2	<2	<20
VOLATILE ORGANICS (μg/L)					
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	<10	<10	<10	<10	0.45
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	<0.5	<0.5	<0.5	<0.5	0.6
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
SEMIVOLATILE ORGANICS (μg/L)					
2,4-Dimethylphenol	<5	<5	<5	<5	<5
2-Methylnaphthalene	<5	<5	<5	<5	<5
Naphthalene	<5	<5	<5	<5	<5
ORGANOCHLORINE PESTICIDES					
No detections above method detection limit					
TOTAL PETROLEUM HYDROCARBONS (μg/L)					
TPH-diesel fraction	<250	<250	<250	<250	250
TPH-gas fraction	<50	<50	<50	<50	<50

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = Cadmium was analyzed but not detected above reporting limit (GFAA reporting limit is 0.001 mg/L; ICAP reporting limit is 0.005 mg/L)
[b] = Measured by Graphite Furnace atomic absorption
[c] = Measured by ICAP
[d] = Cadmium, chromium, and nickel were analyzed but were not detected above reporting limits (Cd: 0.001 mg/L, Cr: 0.005 mg/L, Ni: 0.04 mg/L
* (JMM, 1992)

Table 5.4-15 Summary of Sediment Sample Detections, Fill Site 7, Supplemental RI (page 1 of 2)

Sample ID	LF7SD01	LF7SD02	LF7SD03	LF7SD04	LF7SD05
Sample Depth (ft bgs)	0.1	3.6	4.6	4.5	0.0
Sample Date	08/12/92	08/12/92	08/12/92	08/12/92	08/27/92
INORGANICS (μg/g)					
Aluminum	11000.000[a]	3900.000	3860.000	7500.000[a]	11000.000[a]
Arsenic	3.350	2.140	2.330	2.290	3.800
Barium	159.000	21.200[f]	13.700[f]	4210.000	175.000
Beryllium	0.830	<0.500	<0.500	0.615	<0.500
Cadmium	1.650	<0.515	<0.515	1.690	2.270
Calcium	11000.000[a]	2230.000	2350.000	7400.000[a]	7500.000[a]
Chromium	64.100	32.800	35.300	59.700	133.000
Cobalt	35.200	14.600[f]	15.500[f]	31.700	12.400
Copper	215.000	6.310[f]	16.900	45.700	149.000
Iron	23000.000[a]	8600.000[a]	11000.000[a]	21000.000[a]	30000.000[a]
Lead	260.000[a]	21.000[a]	110.000[a]	190.000[a]	500.000[a]
Magnesium	5720.000	2510.000	2240.000	6100.000[a]	6400.000[a]
Manganese	1050.000	170.000[f]	131.000[f]	277.000[f]	317.000[f]
Mercury	0.135	<0.027	<0.027	0.047	0.249
Nickel	68.500	28.400	26.100	44.400	49.100
Potassium	1130.000	381.000	397.000	714.000	1120.000
Silver	1.410	<0.521	<0.521	1.720	<0.521
Sodium	716.000[k]	223.000[k]	646.000[k]	2300.000[k]	513.000[k]
Thallium	88.400[k]	35.100[k]	35.500[k]	61.900[k]	<14.700[k]
Vanadium	53.900	23.900	27.100	34.400	50.300
Zinc	372.000	43.300	70.100	345.000	576.000
VOLATILE ORGANICS (μg/g)					
Methylene chloride	0.100	<0.040	<0.040	<0.040	<0.040
Trichlorofluoromethane	0.008	<0.002	<0.002	<0.002	0.002
SEMIVOLATILE ORGANICS (μg/g)					
Benzo(a)anthracene	0.460	<0.033	<0.033	<0.033	<0.200[a]
Bis(2-ethylhexyl) phthalate	GT 5.300	<0.390	<0.390	1.700	8.000[a]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than certified upper range
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-15 Summary of Sediment Sample Detections, Fill Site 7, Supplemental RI (page 2 of 2)

Sample ID	LF7SD01	LF7SD02	LF7SD03	LF7SD04	LF7SD0
Sample Depth (ft bgs)	0.1	3.6	4.6	4.5	0.0
Sample Date	08/12/92	08/12/92	08/12/92	08/12/92	08/27/92
SEMIVOLATILE ORGANICS (continued) (μg/g)					
Butylbenzyl-phthalate	<0.033	<0.033	<0.033	<0.033	1.000[a]
Fluoranthene	1.000	<0.085	<0.085	<0.085	0.600[a]
Phenanthrene	0.750	<0.033	<0.033	<0.033	0.300[a]
Pyrene	1.400	<0.033	<0.033	0.098	0.800[a]
ORGANOCHLORINE PESTICIDES[c] (μg/g)					
ppDDE	<0.060[a]	<0.006	<0.006	<0.060[a]	.300
POLYCHLORINATED BIPHENYLS					
No detections above certified reporting limit					
CHLORINATED HERBICIDES					
No detections above method detection limit					
TOTAL PETROLEUM HYDROCARBONS (μg/g)					
TPH-diesel fraction	540.000[a]	15.000	10.000	100.000[a]	60.000[a]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than certified upper range
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
[a] = diluted sample
[c] = all detections are confirmed
[f] = data affected by blank contamination
[k] = data not verified by other lab results

Table 5.4-16 Summary of Surface Soil Sample Detections, Fill Site 7, Initial RI

Sample ID	LF7SS01*	LF7SS02
Sample Date	10/02/90	10/02/90
INORGANICS (μg/g)		
Aluminum	12,900	NA
Arsenic	2.71	NA
Barium	284	NA
Calcium	5,010	NA
Chromium	172	NA
Cobalt	18.3	NA
Copper	24.4	NA
Iron	25,600	NA
Lead	149	NA
Magnesium	25,700	NA
Manganese	488	NA
Mercury	0.060	NA
Nickel	204	NA
Potassium	1,780	NA
Sodium	193	NA
Vanadium	45.8	NA
Zinc	89.8	NA
VOLATILE ORGANICS	NA	ND
SEMIVOLATILE ORGANICS (μg/g)		
Acenaphthene	0.31	NA
Bis(2-ethylhexyl) phthalate	1.6	NA
Benzo[a]anthracene	5.8	NA
Benzo[k]fluoranthene	GT 12	NA
Benzo[a]pyrene	4.2	NA
Chrysene	7.5	NA
Endrin aldehyde	3.2(c)	NA
Fluoranthene	3.6	NA
Methoxychlor	0.062(c)	NA
Phenanthrene	2.3	NA
Pyrene	3.6	NA
PESTICIDES (μg/g)		
Dieldrin	0.002(c)	NA
Endrin	0.007(c)	NA

μg/g = micrograms per gram
GT = greater than upper certified range
(c) = confirmed pesticide detection
NA = not analyzed
ND = no detections above certified reporting limit
* = composite sample

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 1 of 24)

Sample ID	LF7GW06	LF7GW06	LF7GW07	LF7GW07	LF7GW08	LF7GW08
Sample Depth (ft bgs)	0.0	2.0	0.2	1.8	0.5	3.5
Sample Date	07/28/92	07/28/92	07/23/92	07/23/92	07/30/92	07/30/92
INORGANICS (μg/g)						
Aluminum	12000.000	10000.000[a]	20000.000[a]	8200.000[a]	9200.000[a]	6460.000
Antimony	<41.300	<41.300	<41.300	<41.300	<41.300	<41.300
Arsenic	2.420	2.500[a]	5.400[a]	3.970	4.340	6.990
Barium	804.000	365.000	60.200	50.700	101.000	18.500[f]
Beryllium	1.540	1.140	1.570	1.010	0.654	<0.500
Cadmium	0.996	0.900	0.949	0.682	<0.515	<0.515
Calcium	3550.000	6500.000[a]	9300.000[a]	6700.000[a]	4600.000	2840.000
Chromium	123.000	103.000	67.600	51.500	57.700	49.700
Cobalt	49.400	44.800	42.500	36.200	31.100	27.100
Copper	143.000	76.300	45.300	22.600	38.100	19.700
Iron	38000.000[a]	33000.000[a]	36000.000[a]	32000.000[a]	20000.000[a]	18000.000[a]
Lead	41.000[a]	24.000[a]	21.000[a]	37.000[a]	100.000[a]	5.850
Magnesium	21000.000[a]	17000.000[a]	9400.000[a]	8200.000[a]	4900.000	7300.000[a]
Manganese	2490.000	1390.000	628.000	332.000	361.000	189.000[f]
Mercury	2.900[a]	1.800[a]	0.094	0.074	0.143	0.056
Nickel	204.000	173.000	61.900	79.500	61.200	84.700

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 2 of 24)

Sample ID	LF7GW06	LF7GW06	LF7GW07	LF7GW07	LF7GW08	LF7GW08
Sample Depth (ft bgs)	0.0	2.0	0.2	1.8	0.5	3.5
Sample Date	07/28/92	07/28/92	07/23/92	07/23/92	07/30/92	07/30/92
INORGANICS (continued) (µg/g)						
Potassium	1370.000	993.000	1420.000	788.000	742.000	976.000
Silver	<0.521	<0.521	<0.521	<0.521	0.934	<0.521
Sodium	419.000	337.000	367.000	237.000	160.000	366.000
Thallium	156.000[k]	137.000[k]	153.000[k]	122.000[k]	71.400[k]	60.000[k]
Vanadium	76.100	76.200	89.600	54.200	51.200	37.500
Zinc	113.000	86.200	77.400	88.500	75.400	38.600
VOLATILE ORGANICS (µg/g)						
Acetone	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	0.006	<0.002	<0.002	<0.002

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

[a] = diluted sample
[d] = estimated value - below certified reporting limit or method detection limit
[e] = estimated value - method 99
[f] = data affected by blank contamination
[k] = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 3 of 24)

Sample ID	LF7GW06	LF7GW06	LF7GW07	LF7GW07	LF7GW08	LF7GW08
Sample Depth (ft bgs)	0.0	2.0	0.2	1.8	0.5	3.5
Sample Date	07/28/92	07/28/92	07/23/92	07/23/92	07/30/92	07/30/92
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	<0.033	<0.033	<0.200[a]	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	0.200[a]	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	<0.033	<0.200[a]	0.053	0.047	0.078
Benzo(b)fluoranthene	<0.033	<0.033	<0.200[a]	0.047	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.200[a]	<0.033	0.049	0.070
Benzo(a)pyrene	<0.033	<0.033	<0.200[a]	0.052	0.042	0.079
Benzyl alcohol	<0.089	<0.089	<0.400[a]	<0.089	<0.089	<0.089
Chrysene	<0.220	<0.220	<1.000[a]	<0.220	<0.220	<0.220
Di-n-butylphthalate	<0.920	<0.920	<5.000[a]	<0.920	<0.920	<0.920
Fluoranthene	<0.085	<0.085	<0.400[a]	<0.085	<0.085	<0.085
Fluorene	<0.033	<0.033	<0.200[a]	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.200[a]	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.200[a]	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	<0.200[a]	<0.033	<0.033	<0.033
Phenanthrene	<0.033	0.067	0.500[a]	0.078	0.070	0.068
Pyrene	0.080	0.200	0.600[a]	0.085	0.094	0.140

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 4 of 24)

Sample ID	LF7GW06	LF7GW06	LF7GW07	LF7GW07	LF7GW08	LF7GW08
Sample Depth (ft bgs)	0.0	2.0	0.2	1.8	0.5	3.5
Sample Date	07/28/92	07/28/92	07/23/92	07/23/92	07/30/92	07/30/92
ORGANOCHLORINE PESTICIDES[c] (µg/g)						
Aldrin	<0.003	<0.003	<0.003	<0.003	<0.003	0.002[d]
delta-BHC	<0.003	<0.003	0.004	<0.003	<0.003	<0.003
ppDDE	0.009	<0.006	0.110	<0.006	<0.006	<0.006
ppDDT	<0.006	<0.006	0.014	<0.006	<0.006	<0.006
Endosulfan I	<0.003	<0.003	0.004	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction	3.000	2.000	50.000[a]	14.000	10.000	4.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 5 of 24)

Sample ID	LF7GW09	LF7GW09	LF7GW09	LF7GW10	LF7GW10	LF7GW10
Sample Depth (ft bgs)	1.1	2.6	4.4	0.7	2.7	4.7
Sample Date	07/24/92	07/24/92	07/24/92	07/31/92	07/31/92	07/31/92
INORGANICS (μg/g)						
Aluminum	4560.000	3840.000	15000.000[a]	11000.000[a]	3330.000	3930.000
Antimony	<41.300	<41.300	<41.300	<41.300	<41.300	<41.300
Arsenic	2.260	2.580	6.300[a]	2.870	2.510	2.190
Barium	14.100[f]	9.770[f]	673.000	93.500	7.890[f]	38.200
Beryllium	<0.500	<0.500	0.963	<0.500	<0.500	<0.500
Cadmium	<0.515	<0.515	0.935	<0.515	<0.515	<0.515
Calcium	4180.000	4080.000	30000.000[a]	4100.000	3320.000	3570.000
Chromium	46.600	109.000	66.300	149.000	27.800	29.000
Cobalt	14.400[f]	18.800	38.200	37.600	13.900[f]	16.200[f]
Copper	9.140[f]	8.560[f]	130.000	19.300	7.290[f]	22.200
Iron	11000.000[a]	12000.000[a]	32000.000[a]	22000.000[a]	8200.000[a]	9700.000[a]
Lead	3.860	1.770	510.000[a]	23.000[a]	1.890	9.160
Magnesium	4650.000	12000.000[a]	8000.000[a]	9100.000[a]	3940.000	3170.000
Manganese	130.000[f]	132.000[f]	595.000	393.000	99.300[f]	151.000[f]
Mercury	<0.027	<0.027	1.100[a]	0.074	<0.027	0.044
Nickel	43.300	100.000	71.400	168.000	36.100	33.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 6 of 24)

Sample ID	LF7GW09	LF7GW09	LF7GW09	LF7GW10	LF7GW10	LF7GW10
Sample Depth (ft bgs)	1.1	2.6	4.4	0.7	2.7	4.7
Sample Date	07/24/92	07/24/92	07/24/92	07/31/92	07/31/92	07/31/92
INORGANICS (continued) (μg/g)						
Potassium	627.000	459.000	2580.000	1090.000	476.000	780.000
Silver	<0.521	<0.521	<0.521	0.847	<0.521	<0.521
Sodium	193.000[k]	210.000[k]	1270.000[k]	188.000[k]	159.000[k]	182.000[k]
Thallium	48.600[k]	52.900[k]	141.000[k]	95.300[k]	33.800[k]	41.300[k]
Vanadium	22.300	23.700	61.500	57.600	18.600	23.100
Zinc	26.200	23.000	244.000	64.000	18.100[f]	38.000
VOLATILE ORGANICS (μg/g)						
Acetone	<0.046	<0.046	0.076	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	0.025	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	0.008	<0.002	<0.002	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

[a] = diluted sample
[d] = estimated value - below certified reporting limit or method detection limit
[e] = estimated value - method 99
[f] = data affected by blank contamination
[k] = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 7 of 24)

Sample ID	LF7GW09	LF7GW09	LF7GW09	LF7GW10	LF7GW10	LF7GW10
Sample Depth (ft bgs)	1.1	2.6	4.4	0.7	2.7	4.7
Sample Date	07/24/92	07/24/92	07/24/92	07/31/92	07/31/92	07/31/92
SEMIVOLATILE ORGANICS (µg/g)						
Acenaphthylene	<0.033	<0.033	<0.033	<0.033[e]	<0.033[e]	<0.033[e]
Anthracene	<0.033	<0.033	0.058	<0.033[e]	<0.033[e]	<0.033[e]
Benzo(a)anthracene	<0.033	<0.033	0.150	<0.033[e]	<0.033[e]	<0.033[e]
Benzo(b)fluoranthene	<0.033	<0.033	0.200	<0.033[e]	<0.033[e]	<0.033[e]
Benzo(k)fluoranthene	<0.033	<0.033	0.160	<0.033[e]	<0.033[e]	<0.033[e]
Benzo(a)pyrene	<0.033	<0.033	0.220	<0.033[e]	<0.033[e]	<0.033[e]
Benzyl alcohol	<0.089	<0.089	<0.089	<0.089[e]	<0.089[e]	<0.089[e]
Chrysene	<0.220	<0.220	<0.220	<0.220[e]	<0.220[e]	<0.220[e]
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920[e]	<0.920[e]	<0.920[e]
Fluoranthene	<0.085	<0.085	0.380	<0.085[e]	<0.085[e]	<0.085[e]
Fluorene	<0.033	<0.033	<0.033	<0.033[e]	<0.033[e]	<0.033[e]
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033[e]	<0.033[e]	<0.033[e]
2-Methylnaphthalene	<0.033	<0.033	0.530	<0.033[e]	<0.033[e]	<0.033[e]
Naphthalene	<0.033	<0.033	0.250	<0.033[e]	<0.033[e]	<0.033[e]
Phenanthrene	<0.033	<0.033	0.370	<0.033[e]	<0.033[e]	<0.033[e]
Pyrene	<0.033	<0.033	0.310	<0.033[e]	<0.033[e]	<0.033[e]

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 8 of 24)

Sample ID	LF7GW09	LF7GW09	LF7GW09	LF7GW10	LF7GW10	LF7GW10
Sample Depth (ft bgs)	1.1	2.6	4.4	0.7	2.7	4.7
Sample Date	07/24/92	07/24/92	07/24/92	07/31/92	07/31/92	07/31/92
ORGANOCHLORINE PESTICIDES (µg/g)						
Aldrin	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
delta-BHC	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
ppDDE	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
ppDDT	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Endosulfan I	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS						
TPH-diesel fraction	2.000	5.000	7.000	6.000	3.000	30.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 9 of 24)

Sample ID	LF7SB01	LF7SB01	LF7SB01	LF7SB02	LF7SB02	LF7SB03
Sample Depth (ft bgs)	0.7	2.2	3.7	0.5	2.0	0.5
Sample Date	07/27/92	07/27/92	07/27/92	07/29/92	07/29/92	07/29/92
INORGANICS (μg/g)						
Aluminum	12000.000[a]	3830.000	3800.000	8900.000[a]	16000.000[a]	12000.000[a]
Antimony	70.700	<41.300	<41.300	<41.300	55.400	<41.300
Arsenic	4.200[a]	2.650	2.920	3.900[a]	3.500[a]	4.420
Barium	48.200	10.300[f]	9.350[f]	111.000	86.000	85.000
Beryllium	0.899	<0.500	<0.500	0.772	1.410	0.868
Cadmium	1.390	<0.515	<0.515	0.638	1.220	0.775
Calcium	7000.000[a]	6900.000[a]	3100.000	15000.000[a]	9100.000[a]	10000.000[a]
Chromium	618.000	44.100	46.500	139.000	254.000	65.200
Cobalt	61.900	14.600[f]	14.100[f]	35.000	59.900	38.600
Copper	27.300	6.420[f]	24.000	32.800	32.900	22.200
Iron	36000.000[a]	11000.000[a]	10000.000[a]	22000.000[a]	43000.000[a]	25000.000[a]
Lead	29.000[a]	3.020	1.710[f]	21.000[a]	9.410	75.000[a]
Magnesium	51000.000[a]	4790.000	4850.000	23000.000[a]	34000.000[a]	6500.000[a]
Manganese	618.000	127.000[f]	144.000[f]	1250.000	658.000	527.000
Mercury	0.225	<0.027	<0.027	0.062	0.061	0.103
Nickel	542.000	50.500	50.400	203.000	300.000	65.500

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 10 of 24)

Sample ID	LF7SB01	LF7SB01	LF7SB01	LF7SB02	LF7SB02	LF7SB03
Sample Depth (ft bgs)	0.7	2.2	3.7	0.5	2.0	0.5
Sample Date	07/27/92	07/27/92	07/27/92	07/29/92	07/29/92	07/29/92
INORGANICS (continued) (μg/g)						
Potassium	568.000	377.000	417.000	478.000	680.000	998.000
Silver	<0.521	<0.521	<0.521	0.849	0.833	0.711
Sodium	201.000[k]	153.000[k]	210.000[k]	179.000[k]	257.000[k]	244.000[k]
Thallium	172.000[k]	48.200[k]	35.600[k]	102.000[k]	167.000[k]	99.900[k]
Vanadium	78.300	22.300	23.600	54.800	107.000	55.900
Zinc	77.100	22.000[f]	26.500[f]	49.200	65.200	72.000
VOLATILE ORGANICS (μg/g)						
Acetone	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 11 of 24)

Sample ID	LF7SB01	LF7SB01	LF7SB01	LF7SB02	LF7SB02	LF7SB03
Sample Depth (ft bgs)	0.7	2.2	3.7	0.5	2.0	0.5
Sample Date	07/27/92	07/27/92	07/27/92	07/29/92	07/29/92	07/29/92
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	<0.033	<0.033	0.048	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	<0.033	0.038	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	0.050	<0.033	<0.033
Benzyl alcohol	<0.089	<0.089	<0.089	<0.089	<0.089	<0.089
Chrysene	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	<0.920	<0.920
Fluoranthene	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Phenanthrene	<0.033	<0.033	<0.033	0.066	<0.033	<0.033
Pyrene	0.064	<0.033	<0.033	0.096	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 12 of 24)

Sample ID	LF7SB01	LF7SB01	LF7SB01	LF7SB02	LF7SB02	LF7SB03
Sample Depth (ft bgs)	0.7	2.2	3.7	0.5	2.0	0.5
Sample Date	07/27/92	07/27/92	07/27/92	07/29/92	07/29/92	07/29/92
ORGANOCHLORINE PESTICIDES[c] (µg/g)						
Aldrin	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
delta-BHC	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
ppDDE	<0.006	<0.006	<0.006	0.003[d]	<0.006	<0.006
ppDDT	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Endosulfan I	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction	11.000	10.000	1.000	40.000[a]	30.000[a]	1.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 13 of 24)

Sample ID	LF7SB03	LF7SB04	LF7SB04	LF7SB05	LF7SB05	LF7SB06
Sample Depth (ft bgs)	2.5	1.0	3.0	0.6	2.6	0.6
Sample Date	07/29/92	07/29/92	07/29/92	07/29/92	07/29/92	07/30/92
INORGANICS (μg/g)						
Aluminum	4050.000	5300.000	4050.000	6100.000[a]	3880.000	9500.000[a]
Antimony	<41.300	<41.300	<41.300	<41.300	<41.300	<41.300
Arsenic	3.820	3.530	2.940	3.140	1.850	2.400[a]
Barium	10.300[f]	31.100	15.200[f]	34.100	10.900[f]	47.500
Beryllium	<0.500	0.770	<0.500	<0.500	0.634	0.617
Cadmium	<0.515	<0.515	<0.515	<0.515	<0.515	0.693
Calcium	4920.000	4760.000	4860.000	7400.000[a]	4410.000	16000.000[a]
Chromium	30.200	38.300	27.500	40.300	35.200	37.900
Cobalt	14.300[f]	17.000	14.100[f]	18.500	14.000[f]	52.100
Copper	12.500[f]	21.000	35.300	25.000	19.100	41.000
Iron	9600.000[a]	13000.000[a]	9600.000[a]	13000.000[a]	9800.000[a]	44000.000[a]
Lead	2.420	14.000	2.320	14.000[a]	4.320	57.000[a]
Magnesium	3720.000	4530.000	3780.000	4680.000	4260.000	5470.000
Manganese	123.000[f]	213.000[f]	98.900	193.000[f]	94.800[f]	503.000
Mercury	<0.027	0.048	0.032	0.060	<0.027	0.132
Nickel	37.500	42.200	33.200	51.600	37.000	55.200

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 14 of 24)

Sample ID	LF7SB03	LF7SB04	LF7SB04	LF7SB05	LF7SB05	LF7SB06
Sample Depth (ft bgs)	2.5	1.0	3.0	0.6	2.6	0.6
Sample Date	07/29/92	07/29/92	07/29/92	07/29/92	07/29/92	07/30/92
INORGANICS (continued) (μg/g)						
Potassium	393.000	666.000	590.000	761.000	472.000	509.000
Silver	<0.521	<0.521	<0.521	<0.521	<0.521	1.610
Sodium	224.000	147.000	182.000	215.000	147.000	207.000
Thallium	46.300[k]	57.200[k]	37.500[k]	54.400[k]	48.400[k]	170.000[k]
Vanadium	22.000	28.500	21.400	28.100	21.600	87.100
Zinc	38.100	36.000	34.700	42.900	27.000	79.600
VOLATILE ORGANICS (μg/g)						
Acetone	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 15 of 24)

Sample ID	LF7SB03	LF7SB04	LF7SB04	LF7SB05	LF7SB05	LF7SB06
Sample Depth (ft bgs)	2.5	1.0	3.0	0.6	2.6	0.6
Sample Date	07/29/92	07/29/92	07/29/92	07/29/92	07/29/92	07/30/92
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzyl alcohol	0.110	<0.089	<0.089	<0.089	0.110	<0.089
Chrysene	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	<0.920	<0.920
Fluoranthene	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Phenanthrene	<0.033	<0.033	<0.033	0.053	<0.033	0.052
Pyrene	<0.033	<0.033	<0.033	0.054	<0.033	0.110

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 16 of 24)

Sample ID	LF7SB03	LF7SB04	LF7SB04	LF7SB05	LF7SB05	LF7SB06
Sample Depth (ft bgs)	2.5	1.0	3.0	0.6	2.6	0.6
Sample Date	07/29/92	07/29/92	07/29/92	07/29/92	07/29/92	07/30/92
ORGANOCHLORINE PESTICIDES (μg/g)						
Aldrin	<0.003	<0.003	<0.003	<0.003	<0.003	0.002[d]
delta-BHC	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
ppDDE	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
ppDDT	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Endosulfan I	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	8.000	7.000	<1.000	80.000[a]	4.000	8.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 17 of 24)

Sample ID	LF7SB06	LF7SB07	LF7SB07	LF7SB07	LF7SB08	LF7SB08
Sample Depth (ft bgs)	2.9	0.2	2.2	5.9	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92
INORGANICS (μg/g)						
Aluminum	3400.000	11000.000[a]	15000.000[a]	4120.000	11000.000[a]	3760.000
Antimony	<41.300	<41.300	<41.300	<41.300	<41.300	<41.300
Arsenic	2.610	4.100[a]	<0.500[a]	3.320	3.600[a]	2.410
Barium	28.300	118.000	203.000	9.230[f]	125.000	35.000
Beryllium	<0.500	0.655	<0.500	<0.500	0.688	<0.500
Cadmium	<0.515	<0.515	<0.515	<0.515	<0.515	<0.515
Calcium	6310.000	6900.000[a]	21000.000[a]	3430.000	4930.000	2880.000
Chromium	41.400	57.900	72.400	81.300	72.700	40.700
Cobalt	15.600[f]	36.200	31.200	18.400	33.500	14.900[f]
Copper	10.600[f]	32.200	44.400	13.400[f]	22.000	10.900[f]
Iron	9400.000[a]	23000.000[a]	21000.000[a]	11000.000[a]	23000.000[a]	9500.000[a]
Lead	10.400	24.000[a]	44.000[a]	2.170	110.000[a]	15.000[a]
Magnesium	5770.000	5130.000	13000.000[a]	4200.000	3840.000	3540.000
Manganese	125.000[f]	452.000	678.000	150.000[f]	377.000	151.000[f]
Mercury	<0.027	0.085	<0.027	<0.027	0.080[a]	0.036
Nickel	69.900	62.300	85.600	43.500	56.500	32.900

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 18 of 24)

Sample ID	LF7SB06	LF7SB07	LF7SB07	LF7SB07	LF7SB08	LF7SB08
Sample Depth (ft bgs)	2.9	0.2	2.2	5.9	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92
INORGANICS (continued) (µg/g)						
Potassium	448.000	2380.000	11000.000[a]	525.000	1050.000	923.000
Silver	<0.521	0.980	1.360	<0.521	0.952	<0.521
Sodium	232.000[k]	432.000[k]	2330.000[k]	194.000[k]	267.000[k]	211.000[k]
Thallium	33.600[k]	99.900[k]	84.400[k]	42.500[k]	83.300[k]	38.200[k]
Vanadium	18.700	53.900	49.400	25.100	60.100	20.300
Zinc	30.500	71.100	123.000	22.500[f]	69.100	28.100[f]
VOLATILE ORGANICS (µg/g)						
Acetone	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.002	<0.002	0.005	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 19 of 24)

Sample ID	LF7SB06	LF7SB07	LF7SB07	LF7SB07	LF7SB08	LF7SB08
Sample Depth (ft bgs)	2.9	0.2	2.2	5.9	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	0.120	<0.033	<0.033	<0.033	<0.033	<0.033
Anthracene	0.360	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)anthracene	0.380	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	0.200	0.046	<0.033	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	0.350	0.053	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	0.350	0.056	<0.033	<0.033	0.050	<0.033
Benzyl alcohol	<0.089	<0.089	<0.089	<0.089	<0.089	<0.089
Chrysene	0.410	<0.220	<0.220	<0.220	<0.220	<0.220
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	<0.920	2.100
Fluoranthene	0.680	<0.085	<0.085	<0.085	<0.085	<0.085
Fluorene	0.210	<0.033	<0.033	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	0.076	<0.033	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Phenanthrene	1.100	<0.033	<0.033	<0.033	<0.033	<0.033
Pyrene	0.740	0.075	<0.033	<0.033	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 20 of 24)

Sample ID	LF7SB06	LF7SB07	LF7SB07	LF7SB07	LF7SB08	LF7SB08
Sample Depth (ft bgs)	2.9	0.2	2.2	5.9	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92	07/30/92
ORGANOCHLORINE PESTICIDES (μg/g)						
Aldrin	<0.003	<0.030	<0.003	<0.003	<0.003	<0.003
delta-BHC	<0.003	<0.030	<0.003	<0.003	<0.003	<0.003
ppDDE	<0.006	<0.060[a]	<0.006	<0.006	<0.006	<0.006
ppDDT	<0.006	<0.060[a]	<0.006	<0.006	<0.006	<0.006
Endosulfan I	<0.003	<0.030	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (μg/g)						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	4.000	380.000[a]	4.000	3.000	7.000	5.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 21 of 24)

Sample ID	LF7SB09	LF7SB09	LF7SB10	LF7SB10
Sample Depth (ft bgs)	0.5	2.5	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92
INORGANICS (μg/g)				
Aluminum	5400.000	3510.000	4440.000	4340.000
Antimony	<41.300	<41.300	<41.300	<41.300
Arsenic	3.640	4.900	4.080	3.890
Barium	41.700	22.300[f]	21.800[f]	29.900
Beryllium	<0.500	<0.500	<0.500	<0.500
Cadmium	<0.515	<0.515	<0.515	<0.515
Calcium	2350.000	3830.000	2820.000	2640.000
Chromium	44.800	67.800	57.000	76.700
Cobalt	21.000	18.100[f]	21.600	17.600[f]
Copper	15.700	22.100	11.900[f]	16.800
Iron	14000.000[a]	12000.000[a]	14000.000[a]	12000.000[a]
Lead	19.000[a]	6.680	16.000	11.500
Magnesium	3970.000	GT 5000.000	GT 5000.000	5330.000
Manganese	190.000[f]	144.000[f]	201.000[f]	120.000[f]
Mercury	0.037	<0.027	0.038	<0.027
Nickel	48.800	64.300	69.000	51.700

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 22 of 24)

Sample ID	LF7SB09	LF7SB09	LF7SB10	LF7SB10
Sample Depth (ft bgs)	0.5	2.5	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92
INORGANICS (continued) (μg/g)				
Potassium	495.000	454.000	420.000	647.000
Silver	0.727	<0.521	<0.521	<0.521
Sodium	297.000[k]	269.000[k]	278.000[k]	287.000[k]
Thallium	53.100[k]	38.400[k]	39.600[k]	54.400[k]
Vanadium	32.200	24.200	31.900	26.400
Zinc	48.100	29.800[f]	66.500	34.200
VOLATILE ORGANICS (μg/g)				
Acetone	<0.046	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	<0.002	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 23 of 24)

Sample ID	LF7SB09	LF7SB09	LF7SB10	LF7SB10
Sample Depth (ft bgs)	0.5	2.5	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92
SEMIVOLATILE ORGANICS (μg/g)				
Acenaphthylene	<0.033	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	<0.033
Benzyl alcohol	<0.089	<0.089	<0.089	<0.089
Chrysene	<0.220	<0.220	<0.220	<0.220
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920
Fluoranthene	<0.085	<0.085	<0.085	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033
Phenanthrene	<0.033	<0.033	0.045	<0.033
Pyrene	<0.033	<0.033	0.038	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-17 Summary of Soil Boring Sample Detections, Fill Site 7, Supplemental RI (page 24 of 24)

Sample ID	LF7SB09	LF7SB09	LF7SB10	LF7SB10
Sample Depth (ft bgs)	0.5	2.5	0.5	2.5
Sample Date	07/30/92	07/30/92	07/30/92	07/30/92
ORGANOCHLORINE PESTICIDES (µg/g)				
Aldrin	<0.003	<0.003	<0.003	<0.003
delta-BHC	<0.003	<0.003	<0.003	<0.003
ppDDE	<0.006	<0.006	<0.006	<0.006
ppDDT	<0.006	<0.006	<0.006	<0.006
Dieldrin	<0.006	<0.006	<0.006	<0.006
Endosulfan I	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)				
No detections above certified reporting limit				
CHLORINATED HERBICIDES				
No detections above method detection limit				
TOTAL PETROLEUM HYDROCARBONS (µg/g)				
TPH-diesel fraction	11.000	3.000	93.000	8.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper detection limit
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane

a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 5.4-18 Summary of Soil Boring Sample Detections, Helipad Area, Fill Site 7, Follow-on RI (page 1 of 3)

Sample ID	LF7SB26	LF7SB26	LF7SB27	LF7SB27	LF7SB28	LF7SB28	LF7SB29
Sample Depth (ft bgs)	0.5	2.0	0.5	2.0	0.5	2.0	0.5
Sample Date	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
Benzo(a)anthracene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	0.444
Benzo(a)pyrene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	0.561
Benzo(b,k)fluoranthene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	1.17
Chrysene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	0.713
Fluoranthene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	1.29
Phenanthrene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	0.468
Pyrene	<3[a]	<0.3	<0.3	<0.3	<0.3	<0.3	1.17

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

Table 5.4-18 Summary of Soil Boring Sample Detections, Helipad Area, Fill Site 7, Follow-on RI (page 2 of 3)

Sample ID	LF7SB29	LF7SB30	LF7SB31	LF7SB32	LF7SB33	LF7SB34	LF7SB35
Sample Depth (ft bgs)	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Date	12/13/94	01/06/95	01/06/95	01/06/95	01/06/95	01/06/95	01/06/95
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
Benzo(a)anthracene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo(a)pyrene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo(b,k)fluoranthene	<0.3	<0.3	<0.3	<0.3	0.332	<0.3	0.361
Chrysene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fluoranthene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Phenanthrene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Pyrene	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

Table 5.4-18 Summary of Soil Boring Sample Detections, Helipad Area, Fill Site 7, Follow-on RI (page 3 of 3)

Sample ID	LF7SB36	LF7SB37	LF7SB41	LF7SB41
Sample Depth (ft bgs)	0.0	0.0	0.5	2.0
Sample Date	01/06/95	01/06/95	12/13/94	12/13/94
SEMIVOLATILE ORGANICS (µg/g)				
Polyaromatic Hydrocarbons				
Benzo(a)anthracene	<0.3	<0.3	3.79[a]	<0.3
Benzo(a)pyrene	<0.3	<0.3	5.63[a]	<0.3
Benzo(b,k)fluoranthene	0.477	<0.3	9.54[a]	<0.3
Chrysene	<0.3	<0.3	4.94[a]	<0.3
Fluoranthene	0.4	<0.3	5.98[a]	<0.3
Phenanthrene	<0.3	<0.3	<3[a]	<0.3
Pyrene	0.355	<0.3	5.52[a]	<0.3

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

Table 5.4-19 Summary of Soil Boring Sample Detections Associated with Boring LF7SB07, Fill Site 7, Follow-on RI (page 1 of 2)

Sample ID	LF7SB12	LF7SB12	LF7SB13	LF7SB13	LF7SB14	LF7SB14	LF7SB15
Sample Depth (ft bgs)	0.5	2.0	0.5	2.0	0.5	2.0	0.5
Sample Date	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)							
No detections above reporting limit							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

Table 5.4-19 Summary of Soil Boring Sample Detections Associated with Boring LF7SB07, Fill Site 7, Follow-on RI (page 2 of 2)

Sample ID	LF7SB15
Sample Depth (ft bgs)	2.0
Sample Date	11/30/94

TOTAL PETROLEUM HYDROCARBONS (µg/g)

TPH (immunoassay)

No detections above reporting limit

TPH-diesel fraction

No detections above reporting limit

TPH-gas fraction

No detections above reporting limit

µg/g = microgram per gram

Table 5.4-20 Summary of Test Pit Soil Sample Detections, Fill Site 7, Initial RI

Sample ID	LF7TP01	LF7TP02	LF7TP03	LF7TP04	LF7TP05
Sample Depth (ft bgs)	6.0	7.0	7.0	7.0	7.0
Sample Date	10/02/90	10/08/90	10/08/90	10/08/90	10/08/90
INORGANICS (μg/g)					
Aluminum	5,200	6,220	7,550	8,880	7,690
Arsenic	<2.50	<2.50	<2.50	<2.50	<2.50
Barium	11.3	19.5	26.1	46.9	23.5
Calcium	3,300	3,920	5,130	4,040	4,210
Chromium	28.4	54.3	55.0	104	62.4
Cobalt	5.55	4.20	6.55	13.4	6.25
Iron	10,500	18,500	13,900	17,800	13,900
Lead	<7.44	<7.44	<7.44	12.8	<7.44
Magnesium	4,220	3,150	7,140	21,300	6,570
Manganese	103	101	140	221	131
Mercury	0.274	<0.050	<0.050	<0.050	<0.050
Nickel	30.6	26.6	49.3	183	49.0
Potassium	620	1,070	1,010	1,310	1,100
Sodium	257	441	304	306	371
Vanadium	19.1	41.6	28.7	30.0	26.1
Zinc	15.8	14.2	16.4	19.2	16.6
VOLATILE ORGANICS					
No detections above certified reporting limit					
SEMIVOLATILE ORGANICS					
No detections above certified reporting limit					
PESTICIDES (μg/g)					
ppDDE	<0.003	<0.003	<0.003	<0.003	0.004(c)
Isodrin	<0.003	0.005(u)	<0.003	<0.003	0.009(u)
PCBs* (μg/g)					
PCB 1260	<0.048	<0.048	<0.048	<0.048	0.049

μg/g = micrograms per gram
< = less than certified reporting limit
ppDDE = 2,2-Bis(p-chlorophenyl)-1,1-dichloroethene
(c) = confirmed pesticide detection
(u) = unconfirmed pesticide detection
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 5.4-21 Summary of Soil Boring Sample Detections Associated with Well LF7GW09, Fill Site 7, Follow-on RI (page 1 of 2)

Sample ID	LF7SB16	LF7SB16	LF7SB17	LF7SB17	LF7SB18	LF7SB18	LF7SB19
Sample Depth (ft bgs)	2.0	4.0	2.0	4.0	2.0	4.0	1.5
Sample Date	12/13/94	12/13/94	12/13/94	12/13/94	12/12/94	12/12/94	12/12/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	<25	<25	<25	120	<25
Lead	NA	NA	NA	0.7	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-21 Summary of Soil Boring Sample Detections Associated with Well LF7GW09, Fill Site 7, Follow-on RI (page 2 of 2)

Sample ID	LF7SB19	LF7SB19	LF7SB19
Sample Depth (ft bgs)	2.0	3.5	4.0
Sample Date	12/12/94	12/12/94	12/12/94
INORGANICS (µg/g)			
Lead-XRF	NA	NA	<25
Lead	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)			
Total Organic Carbon	440	57600	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-22 Summary of Soil Boring Sample Detections Associated with Well LF7GW08, Fill Site 7, Follow-on RI (page 1 of 2)

Sample ID	LF7SB21	LF7SB21	LF7SB22	LF7SB22	LF7SB23	LF7SB23	LF7SB24
Sample Depth (ft bgs)	2.0	4.0	2.0	4.0	2.0	4.0	2.0
Sample Date	12/06/94	12/06/94	12/07/94	12/07/94	12/07/94	12/07/94	12/08/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	217	<25	<25	43.7	38.8
Lead	NA	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-22 Summary of Soil Boring Sample Detections Associated with Well LF7GW08, Fill Site 7, Follow-on RI (page 2 of 2)

Sample ID	LF7SB24
Sample Depth (ft bgs)	4.0
Sample Date	12/08/94
INORGANICS (µg/g)	
Lead-XRF	<25
Lead	5.49

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-23 Summary of Soil Boring Sample Detections, Fill Site 7, Initial RI

Sample ID	LF7SO01	LF7SO02	LF7SO03
Sample Depth (ft bgs)	4.2	4.3	3.2
Sample Date	10/18/90	10/19/90	10/19/90
INORGANICS (μg/g)			
Aluminum	5,900	6,640	5,250
Arsenic	3.30	<2.50	<2.50
Barium	15.3	27.8	9.40
Calcium	4,380	4,810	3,960
Chromium	59.8	107	43.3
Cobalt	6.74	8.74	5.07
Copper	<2.84	6.66	<2.84
Iron	16,700	15,400	11,000
Magnesium	4,080	11,900	4,770
Manganese	167	213	110
Mercury	0.072	<0.05	<0.05
Nickel	28.3	84.5	31.8
Potassium	690	1,020	570
Sodium	206	162	144
Vanadium	32.2	26.1	20.8
Zinc	19.5	23.1	13.8
VOLATILE ORGANICS			
No detections above certified reporting limit			
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			
PESTICIDES			
No detections above certified reporting limit			

μg/g = micrograms per gram
< = less than certified reporting limit

Table 5.4-24 Summary of Groundwater Sample Detections, Fill Site 7, Initial RI

Sample ID	LF7GW01	LF7GW02	LF7GW03	LF7GW04	LF7GW05
Sample Date	12/05/90	12/04/90	12/03/90	12/03/90	12/04/90
INORGANICS: filtered, except for cyanide (μg/L)					
Barium	<2.82	6.92	10.7	25.4	<2.82
Calcium	83,300	68,000	53,800	88,100	64,600
Chromium	19.1	<16.8	<16.8	<16.8	<16.8
Iron	2,690	898	433	86.7	319
Magnesium	61,000	68,800	63,800	86,000	56,700
Manganese	1,120	833	397	842	529
Potassium	9,940	15,100	19,200	15,700	19,200
Sodium	87,000[a]	140,000[a]	150,000[a]	110,000[a]	110,000[a]
VOLATILE ORGANICS					
No detections above certified reporting limit					
SEMIVOLATILE ORGANICS					
No detections above certified reporting limit					
PESTICIDES					
No detections above certified reporting limit					
MISCELLANEOUS PARAMETERS (μg/L)					
Chloride	85,000[a]	85,000[a]	230,000[a]	120,000[a]	82,000[a]
Fluoride	1,390	1,770	1,730	1,710	1,400
Nitrate	200[a]	186	280[a]	310[a]	169
Sulfate	13,000[a]	13,000[a]	7,940	33,000[a]	28,000[a]

μg/L = micrograms per liter
< = less than certified reporting limit
[a] = diluted sample

Table 5.4-25 Summary of Groundwater Sample Detections, Fill Site 7, Supplemental RI (page 1 of 3)

Sample ID Sample Date	LF7GW01 09/02/92	LF7GW02 09/02/92	LF7GW03 09/02/92	LF7GW04 09/02/92	LF7GW05 09/03/92	LF7GW06 08/28/92	LF7GW07 09/03/92	LF7GW08 08/31/92	LF7GW09 09/03/92	LF7GW10 08/31/92
INORGANICS: filtered, except for cyanide and mercury (μg/L)										
Arsenic	4.260	<2.540	<2.540	<2.540	8.850	17.500	2.980	9.170	8.210	12.300
Barium	12.000	8.790	15.600	23.000	6.840	15.600	9.350	14.300	26.500	13.700
Cadmium	<4.010	<4.010	<4.010	<4.010	<4.010	4.560	<4.010	<4.010	<4.010	55.200
Calcium	85100.000	63100.000	58300.000	75200.000	64600.000	72200.000	69200.000	90700.000	84900.000	23200.000
Chromium	<6.020	<6.020	11.300	<6.020	<6.020	<6.020	<6.020	<6.020	<6.020	104.000
Cyanide	<8.900	<8.900	<8.900	<8.900	<8.900	<8.900	<8.900	<8.900	<8.900	20.200
Iron	11100.000	4730.000	7770.000	146.000	5360.000	1910.000	135.000	<38.800	522.000	402.000
Lead	<1.260	1.630	<1.260	<1.260	<1.260	1.520	13.200	120.000	<1.260	1.740
Magnesium	59900.000	56500.000	58700.000	72100.000	45000.000	38300.000	47600.000	53500.000	107000.000	43100.000
Manganese	1260.000	806.000	356.000	798.000	661.000	579.000	325.000	367.000	691.000	175.000
Potassium	15400.000	19200.000	20900.000	15700.000	25700.000	22800.000	25100.000	15600.000	112000.000	57000.000
Selenium	<3.020	<3.020	<3.020	<3.020	<3.020	<3.020	<3.020	<3.020	<3.020	3.510
Sodium	119000.000	137000.000	164000.000	107000.000	146000.000	215000.000	196000.000	116000.000	990000.000[a]	750000.000[a]
Vanadium	<11.000	<11.00	<11.000	11.700	<11.000	<11.000	<11.000	12.400	28.300	78.600

μg/L = micrograms per Liter
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination

Table 5.4-25 Summary of Groundwater Sample Detections, Fill Site 7, Supplemental RI (page 2 of 3)

Sample ID	LF7GW01	LF7GW02	LF7GW03	LF7GW04	LF7GW05	LF7GW06	LF7GW07	LF7GW08	LF7GW09	LF7GW10
Sample Date	09/02/92	09/02/92	09/02/92	09/02/92	09/03/92	08/28/92	09/03/92	08/31/92	09/03/92	08/31/92
MISCELLANEOUS PARAMETERS (µg/L)										
Alkalinity										
Total	598000.000	383000.000	400000.000	495000.000	558000.000	530000.000	520000.000	365000.000	753000.000	GT 560000.000
Bicarbonate	594000.000	380000.000	398000.000	489000.000	554000.000	519000.000	513000.000	359000.000	749000.000	847000.000
Carbonate	3220.000	2770.000	<2500.000	5920.000	3140.000	11400.000	6810.000	5610.000	3610.000	23000.000
Hydroxide	29.000	39.000	21.000	64.000	30.000	117.000	71.000	83.000	26.000	144.000
Chloride	110000.000[a]	55000.000[a]	280000.000[a]	60000.000[a]	91000.000[a]	220000.000[a]	160000.000[a]	170000.000[a]	1200000.000[a]	800000.000[a]
Fluoride	1160.000	1200.000	<2000.000[a]	1010.000	1240.000	<2000.000[a]	<2000.000[a]	<2000.000[a]	<25000.000[a]	<5000.000[a]
Nitrate	24.000	24.000	17.000	30.900	97.000	3000.000[a]	10.100	<10.000	73.800	66.900
Sulfate	<5000.000	<5000.000	<10000.000[a]	143000.000	6060.000	<10000.000[a]	62000.000[a]	72000.000[a]	<120000.000[a]	<25000.000[a]
TDS	799000.000	768000.000	875000.000	826000.000	831000.000	966000.000	919000.000	798000.000	3260000.000	2350000.000
VOLATILE ORGANICS (µg/L)										
c-1,2-Dichloroethene	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	0.360	5.900	<0.160
Vinyl chloride	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	3.400	<0.160
SEMIVOLATILE ORGANICS (µg/L)										
Bis(2-ethylhexyl)phthalate	<1.000	<1.000	<1.000	<1.000	0.990[d,f]	<1.000	<1.000	<1.000	<1.000	<1.000
ORGANOCHLORINE PESTICIDES										
No detections above method detection limit										

µg/L = micrograms per Liter
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit
[f] = data affected by blank contamination

Table 5.4-25 Summary of Groundwater Sample Detections, Fill Site 7, Supplemental RI (page 3 of 3)

Sample ID Sample Date	LF7GW01 09/02/92	LF7GW02 09/02/92	LF7GW03 09/02/92	LF7GW04 09/02/92	LF7GW05 09/03/92	LF7GW06 08/28/92	LF7GW07 09/03/92	LF7GW08 08/31/92	LF7GW09 09/03/92	LF7GW10 08/31/92
POLYCHLORINATED BIPHENYLS										
No detections above certified reporting limit										
CHLORINATED HERBICIDES[c] (µg/L)										
2,4-D	<1.000	<1.000	<1.000	<1.000	1.700	<1.000	4.900	<1.000	1.100	<1.000
TOTAL PETROLEUM HYDROCARBONS (µg/L)										
TPH-gas fraction	210.000	<50.000	<50.000	<50.000	<50.000	<50.000	<50.000	<50.000	<50.000	<50.000

µg/L = micrograms per Liter
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit
[f] = data affected by blank contamination

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 1 of 12)

Sample ID	LF7GW01	LF7GW01	LF7GW02	LF7GW02	LF7GW03	LF7GW03	LF7GW04
Sample Depth (ft bgs)	7.0	14.0	7.0	10.0	0.0	10.0	8.0
Sample Date	01/04/95	11/09/94	01/04/95	11/08/94	01/09/95	11/08/94	01/09/95
INORGANICS (µg/L)							
Aluminum	NA	495	NA	1090	NA	1100	NA
Aluminum (F)	NA	<25.0	NA	<25.0	NA	<25.0	NA
Antimony	NA	<1.11	NA	1.16	NA	<1.11	NA
Antimony (F)	NA	5.50	NA	10.5	NA	8.50	NA
Arsenic	NA	2.21	NA	<1.70	NA	5.15	NA
Arsenic (F)	NA	<1.70	NA	<1.70	NA	4.30	NA
Barium	NA	<11.0	NA	117	NA	27.0	NA
Barium (F)	NA	<11.0	NA	23.0	NA	23.0	NA
Beryllium	NA	<1.00	NA	<1.00	NA	<1.00	NA
Beryllium (F)	NA	<1.00	NA	1.00	NA	<1.00	NA
Cadmium	NA	<3.00	NA	<3.00	NA	<3.00	NA
Calcium	NA	43500	NA	69900	NA	40600	NA
Calcium (F)	NA	45700	NA	53800	NA	41800	NA
Chromium	NA	5.00	NA	19.0[f]	NA	14.0[f]	NA
Chromium (F)	NA	<5.00	NA	<5.00	NA	<5.00	NA
Copper	NA	2.33[f]	NA	6.37[f]	NA	2.77[f]	NA
Copper (F)	NA	<1.00	NA	5.19	NA	4.77	NA
Cyanide	NA	<5.00	NA	<5.00	NA	<5.00	NA
Iron	NA	7700	NA	25000	NA	5720	NA
Iron (F)	NA	4700	NA	5900	NA	3230	NA
Lead	NA	2.19	NA	1.34	NA	4.03	NA
Lead (F)	NA	<0.735	NA	30.0	NA	<0.735	NA
Magnesium	NA	53900	NA	66800	NA	41900	NA
Magnesium (F)	NA	50900	NA	51200	NA	42300	NA
Manganese	NA	497	NA	1150	NA	352	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 2 of 12)

Sample ID	LF7GW01	LF7GW01	LF7GW02	LF7GW02	LF7GW03	LF7GW03	LF7GW04
Sample Depth (ft bgs)	7.0	14.0	7.0	10.0	0.0	10.0	8.0
Sample Date	01/04/95	11/09/94	01/04/95	11/08/94	01/09/95	11/08/94	01/09/95
INORGANICS (µg/L)							
Manganese (F)	NA	468	NA	776	NA	315	NA
Mercury	NA	0.200[f]	NA	0.300[f]	NA	0.300[f]	NA
Nickel	NA	10.3	NA	19.3	NA	7.14	NA
Nickel (F)	NA	<5.00	NA	<5.00	NA	<5.00	NA
Potassium	NA	6200	NA	18300	NA	15200	NA
Potassium (F)	NA	5080	NA	14200	NA	14100	NA
Selenium	NA	<1.72	NA	<1.72	NA	<1.72	NA
Selenium (F)	NA	<1.72	NA	<1.72	NA	<1.72	NA
Silver	NA	<2.00[p]	NA	<2.00[n]	NA	<2.00[n]	NA
Silver (F)	NA	<2.00	NA	<2.00	NA	<2.00	NA
Sodium	NA	65800	NA	113000	NA	115000	NA
Sodium (F)	NA	62100	NA	86000	NA	112000	NA
Thallium	NA	<0.811	NA	<0.811	NA	<0.811	NA
Vanadium	NA	7.00	NA	8.00	NA	9.00	NA
Vanadium (F)	NA	<4.00	NA	<4.00	NA	<4.00	NA
Zinc	NA	10.0	NA	16.0[f]	NA	19.0[f]	NA
Zinc (F)	NA	6.00	NA	7.00	NA	7.00	NA
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	397000	NA	538000	NA	418000	NA
Bicarbonate Alkalinity	NA	397000	NA	538000[f]	NA	418000	NA
Chloride	NA	80400	NA	89600[n]	NA	324000	NA
Fluoride	NA	<16.0	NA	604	NA	638	NA
Nitrate	NA	783	NA	<41.0	NA	1810	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [illegible]maly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 3 of 12)

Sample ID	LF7GW01	LF7GW01	LF7GW02	LF7GW02	LF7GW03	LF7GW03	LF7GW04
Sample Depth (ft bgs)	7.0	14.0	7.0	10.0	0.0	10.0	8.0
Sample Date	01/04/95	11/09/94	01/04/95	11/08/94	01/09/95	11/08/94	01/09/95
MISCELLANEOUS PARAMETERS (µg/L)							
Sulfate	NA	42900	NA	33600	NA	27900	NA
Total Dissolved Solids	NA	534000[f]	NA	668000[f]	NA	699000	NA
VOLATILE ORGANICS (µg/L)							
Chloroform	<0.124	NA	<0.124[P]	NA	<0.124	NA	<0.124
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	2.95[f]	NA	3.48[f]	NA	<2.34	NA
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[P] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 4 of 12)

Sample ID	LF7GW01	LF7GW01	LF7GW02	LF7GW02	LF7GW03	LF7GW03	LF7GW04
Sample Depth (ft bgs)	7.0	14.0	7.0	10.0	0.0	10.0	8.0
Sample Date	01/04/95	11/09/94	01/04/95	11/08/94	01/09/95	11/08/94	01/09/95
TPH-gas fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = anomaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 5 of 12)

Sample ID	LF7GW04	LF7GW05	LF7GW05	LF7GW06	LF7GW06	LF7GW07	LF7GW07
Sample Depth (ft bgs)	14.0	7.0	10.0	6.0	7.0	4.0	5.5
Sample Date	11/09/94	01/04/95	11/09/94	11/09/94	04/07/95	01/09/95	11/10/94
INORGANICS (µg/L)							
Aluminum	328[f]	NA	122[f]	2130	NA	NA	2930
Aluminum (F)	<25.0	NA	<25.0	<25.0	NA	NA	<25.0
Antimony	<1.11	NA	<1.11	1.37[f]	NA	NA	<1.11
Antimony (F)	7.30	NA	5.30	11.9	NA	NA	8.70
Arsenic	<1.70	NA	8.51	15.5	NA	NA	7.88
Arsenic (F)	<1.70	NA	8.60	13.2	NA	NA	4.10
Barium	26.0	NA	45.0	28.0	NA	NA	65.0
Barium (F)	16.0	NA	14.0	<11.0	NA	NA	30.0
Beryllium	<1.00	NA	<1.00	<1.00	NA	NA	1.00[f]
Beryllium (F)	1.00	NA	<1.00	1.00	NA	NA	<1.00
Cadmium	<3.00	NA	3.00	<3.00	NA	NA	17.0[f]
Calcium	45600	NA	46000	46300	NA	NA	168000
Calcium (F)	48600	NA	46000	45300	NA	NA	117000
Chromium	16.0	NA	14.0	9.00	NA	NA	13.0
Chromium (F)	<5.00	NA	5.00	<5.00	NA	NA	<5.00
Copper	<1.00[n]	NA	<1.00[n]	3.86[f]	NA	NA	7.14[f]
Copper (F)	5.20	NA	5.80	1.57	NA	NA	6.01
Cyanide	<5.00	NA	<5.00	5.90	NA	NA	<5.00[n]
Iron	1550	NA	14100	8350	NA	NA	6320
Iron (F)	108	NA	8900	2910	NA	NA	1030
Lead	1.60	NA	<0.735	5.64	NA	NA	11.0
Lead (F)	<0.735	NA	<0.735	<0.735	NA	NA	<0.735
Magnesium	47600	NA	42100	27400	NA	NA	85300
Magnesium (F)	47100	NA	38400	25600	NA	NA	53700
Manganese	846	NA	568	371	NA	NA	474

µg/L = microgram per Liter
(F) = Filtered
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NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 6 of 12)

Sample ID	LF7GW04	LF7GW05	LF7GW05	LF7GW06	LF7GW06	LF7GW07	LF7GW07
Sample Depth (ft bgs)	14.0	7.0	10.0	6.0	7.0	4.0	5.5
Sample Date	11/09/94	01/04/95	11/09/94	11/09/94	04/07/95	01/09/95	11/10/94
INORGANICS (µg/L)							
Manganese (F)	469	NA	495	308	NA	NA	313
Mercury	<0.110	NA	0.800[f]	<0.110	NA	NA	0.500[f]
Nickel	34.1	NA	10.9	11.2	NA	NA	96.0 [an]
Nickel (F)	<5.00	NA	15.4	<5.00	NA	NA	5.00
Potassium	10900	NA	25500	18000	NA	NA	26700
Potassium (F)	10700	NA	21500	16100	NA	NA	15900
Selenium	<1.72	NA	<1.72	<1.72	NA	NA	3.36
Selenium (F)	<1.72	NA	<1.72	<1.72	NA	NA	<1.72
Silver	<2.00[p]	NA	2.00	<2.00[p]	NA	NA	3.00[f]
Silver (F)	<2.00	NA	<2.00	<2.00	NA	NA	<2.00
Sodium	67800	NA	198000	124000	NA	NA	285000
Sodium (F)	67400	NA	166000	118000	NA	NA	198000
Thallium	<0.811	NA	<0.811	<0.811	NA	NA	<0.811
Vanadium	<4.00	NA	10.0	9.00	NA	NA	11.0
Vanadium (F)	<4.00	NA	5.00	<4.00	NA	NA	<4.00
Zinc	7.00	NA	6.00	71.0	NA	NA	222
Zinc (F)	<4.00	NA	6.00	<4.00	NA	NA	5.00
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	443000	NA	722000	432000	NA	NA	763000
Bicarbonate Alkalinity	443000	NA	722000	432000	NA	NA	763000
Chloride	47200	NA	12500	12000	NA	NA	312000
Fluoride	<16.0	NA	<16.0	<16.0	NA	NA	<16.0
Nitrate	<41.0	NA	1600	1690	NA	NA	578

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [illegible] anomaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 7 of 12)

Sample ID	LF7GW04	LF7GW05	LF7GW05	LF7GW06	LF7GW06	LF7GW07	LF7GW07
Sample Depth (ft bgs)	14.0	7.0	10.0	6.0	7.0	4.0	5.5
Sample Date	11/09/94	01/04/95	11/09/94	11/09/94	04/07/95	01/09/95	11/10/94
MISCELLANEOUS PARAMETERS (µg/L)							
Sulfate	45700	NA	13900	22200	NA	NA	90400
Total Dissolved Solids	532000[f]	NA	826000	674000	NA	NA	1240000
VOLATILE ORGANICS (µg/L)							
Chloroform	NA	<0.124	NA	NA	<0.5	<0.124	NA
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	2.80[f]	NA	32.4	30.8	NA	NA	7.92[f]
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 8 of 12)

Sample ID	LF7GW04	LF7GW05	LF7GW05	LF7GW06	LF7GW06	LF7GW07	LF7GW07
Sample Depth (ft bgs)	14.0	7.0	10.0	6.0	7.0	4.0	5.5
Sample Date	11/09/94	01/04/95	11/09/94	11/09/94	04/07/95	01/09/95	11/10/94
TPH-gas fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = d[redacted]ffected by blank contamination
[m]= [redacted]omaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 9 of 12)

Sample ID	LF7GW08	LF7GW08	LF7GW09	LF7GW09	LF7GW10	LF7GW10
Sample Depth (ft bgs)	5.0	7.0	5.0	5.5	7.0	10.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	01/09/95	11/09/94
INORGANICS (µg/L)						
Aluminum	NA	365	NA	5340	NA	2920
Aluminum (F)	NA	<25.0	NA	<25.0	NA	79.0
Antimony	NA	<1.11	NA	<1.11	NA	<1.11
Antimony (F)	NA	3.30	NA	<1.11	NA	5.90
Arsenic	NA	34.4	NA	4.93[n]	NA	3.36
Arsenic (F)	NA	26.0[n]	NA	2.60[n]	NA	<1.70
Barium	NA	40.0	NA	108	NA	16.0
Barium (F)	NA	28.0	NA	54.0	NA	<11.0
Beryllium	NA	<1.00	NA	<1.00	NA	<1.00
Beryllium (F)	NA	<1.00	NA	1.00	NA	1.00
Cadmium	NA	4.00	NA	<3.00	NA	6.00
Calcium	NA	15900	NA	115000	NA	18900
Calcium (F)	NA	117000	NA	68300	NA	17600
Chromium	NA	<5.00	NA	16.0	NA	176
Chromium (F)	NA	<5.00	NA	<5.00	NA	99.0
Copper	NA	3.77[f]	NA	5.30[f]	NA	6.88[f]
Copper (F)	NA	2.55	NA	5.11	NA	18.4
Cyanide	NA	<5.00	NA	<5.00	NA	<5.00
Iron	NA	3560	NA	9040	NA	5010
Iron (F)	NA	1610	NA	1920	NA	479
Lead	NA	3.10[f]	NA	10.7[f]	NA	3.42
Lead (F)	NA	1.29	NA	0.880	NA	<0.735
Magnesium	NA	131000	NA	117000	NA	43200

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 10 of 12)

Sample ID	LF7GW08	LF7GW08	LF7GW09	LF7GW09	LF7GW10	LF7GW10
Sample Depth (ft bgs)	5.0	7.0	5.0	5.5	7.0	10.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	01/09/95	11/09/94
INORGANICS (µg/L)						
Magnesium (F)	NA	90100	NA	72000	NA	35000
Manganese	NA	594	NA	689	NA	55.0
Manganese (F)	NA	425	NA	476	NA	16.0
Mercury	NA	0.700[f]	NA	0.200[f]	NA	0.700[f]
Nickel	NA	6.83	NA	13.2	NA	26.4
Nickel (F)	NA	5.80	NA	34.1	NA	9.10
Potassium	NA	30600	NA	94400	NA	49600
Potassium (F)	NA	21700	NA	63100	NA	40100
Selenium	NA	<1.72	NA	4.20[m]	NA	2.84
Selenium (F)	NA	<1.72	NA	<1.72	NA	2.90
Silver	NA	4.00[f]	NA	<2.00[p]	NA	7.00
Silver (F)	NA	<2.00	NA	7.00	NA	<2.00
Sodium	NA	610000	NA	827000	NA	675000
Sodium (F)	NA	446000	NA	576000	NA	565000
Thallium	NA	<0.811	NA	1.89[f]	NA	<0.811
Vanadium	NA	6.00	NA	20.0	NA	101
Vanadium (F)	NA	<4.00	NA	6.00	NA	76.0
Zinc	NA	26.0	NA	69.0	NA	23.0
Zinc (F)	NA	<4.00	NA	<4.00	NA	7.00
MISCELLANEOUS PARAMETERS (µg/L)						
Alkalinity (Total as CaCO3)	NA	823000	NA	1090000	NA	1040000
Bicarbonate Alkalinity	NA	823000	NA	1090000	NA	1040000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = d[redacted]ffected by blank contamination
[m] = [redacted]omaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 11 of 12)

Sample ID	LF7GW08	LF7GW08	LF7GW09	LF7GW09	LF7GW10	LF7GW10
Sample Depth (ft bgs)	5.0	7.0	5.0	5.5	7.0	10.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	01/09/95	11/09/94
MISCELLANEOUS PARAMETERS (µg/L)						
Chloride	NA	781000	NA	1150000	NA	837000
Fluoride	NA	5300	NA	<16.0	NA	1860
Nitrate	NA	<41.0	NA	3680	NA	4870
Sulfate	NA	111000	NA	15800	NA	350000
Total Dissolved Solids	NA	2020000	NA	2710000	NA	2290000
VOLATILE ORGANICS (µg/L)						
Chloroform	<0.124	NA	<0.124	NA	2.51	NA
SEMIVOLATILE ORGANICS (µg/L)						
Bis(2-ethylhexyl) phthalate	NA	4.29[f]	NA	8.28[f]	NA	31.6
ORGANOCHLORINE PESTICIDES (µg/L)						
No detections above reporting limit						
POLYCHLORINATED BIPHENYLS (µg/L)						
No detections above reporting limit						
CHLORINATED HERBICIDES (µg/L)						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 5.4-26 Summary of Groundwater Sample Detections, Fill Site 7, Follow-on RI (page 12 of 12)

Sample ID	LF7GW08	LF7GW08	LF7GW09	LF7GW09	LF7GW10	LF7GW10
Sample Depth (ft bgs)	5.0	7.0	5.0	5.5	7.0	10.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	01/09/95	11/09/94
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-diesel fraction						
No detections above reporting limit						
TPH-gas fraction						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = d[redacted]ffected by blank contamination
[m] = [redacted]omaly observed
[n] = estimated value
[p] = unreliable data

Table 5.4-27 Summary of Filtered and Unfiltered Metals Detections in Groundwater, Fill Site 7, Supplemental RI

Sample ID Sample Date	LF7GW06 08/28/92 UNFILTERED	LF7GW06 08/28/92 FILTERED	LF7GW08 08/31/92 UNFILTERED	LF7GW08 08/31/92 FILTERED	LF7GW10 08/31/92 UNFILTERED	LF7GW10 08/31/92 FILTERED
INORGANICS (μg/L)						
Aluminum	1140.000	< 141.000	249.000	< 141.000	7370.000	< 141.000
Arsenic	19.200	17.500	10.900	9.170	17.300	12.300
Barium	68.000	15.600	18.500	14.300	30.700	13.700
Cadmium	7.620	4.560	< 4.010	< 4.010	< 4.010	55.200
Calcium	73300.000	72200.000	92400.000	90700.000	24200.000	23200.000
Chromium	5.32[d]	< 6.020	< 6.020	< 6.020	158.000	104.000
Copper	< 8.090	< 8.090	< 8.090	< 8.090	13.800	< 8.090
Iron	7950.000	1910.000	848.000	< 38.800	12900.000	402.000
Lead	3.040	1.520	5.100	120.000	5.860	1.740
Magnesium	39900.000	38300.000	55300.000	53500.000	47500.000	43100.000
Manganese	647.000	579.000	371.000	367.000	270.000	175.000
Nickel	< 34.300	< 34.300	< 34.300	< 34.300	57.100	< 34.300
Potassium	23800.000	22800.000	16300.000	15600.000	57100.000	57000.000
Selenium	< 3.020	< 3.020	< 3.020	< 3.020	< 3.020	3.510
Sodium	233000.000	215000.000	125000.000	116000.000	820000.000[a]	750000.000[a]
Vanadium	11.600	< 11.000	14.500	12.400	110.000	78.600
Zinc	15.1[d]	< 21.100	< 21.100	< 21.100	34.000	< 21.100

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit

Table 5.4-28 Summary of Discrete Groundwater Sample Detections Associated with Well LF7GW08, Fill Site 7, Follow-on RI (page 1 of 3)

Sample ID	LF7GW08	LF7SB20	LF7SB20	LF7SB20	LF7SB21	LF7SB21	LF7SB21
Sample Depth (ft bgs)	8.0	6.5	16.5	25.0	6.5	16.0	25.0
Sample Date	04/04/95	12/06/94	12/06/94	12/06/94	12/06/94	12/06/94	12/06/94
INORGANICS (µg/L)							
Lead	<5	9	<5	8	54	<5	<5
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
Trichloroethene	NA	0.7	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride (Chloroethene)	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 5.4-28 Summary of Discrete Groundwater Sample Detections Associated with Well LF7GW08, Fill Site 7, Follow-on RI (page 2 of 3)

Sample ID	LF7SB22	LF7SB22	LF7SB22	LF7SB23	LF7SB23	LF7SB23	LF7SB24
Sample Depth (ft bgs)	6.5	16.5	25.0	6.5	18.5	26.0	7.5
Sample Date	12/07/94	12/07/94	12/07/94	12/07/94	12/07/94	12/08/94	12/08/94
INORGANICS (µg/L)							
Lead	17[f]	<5	12[f]	13[f]	<5	<5	22
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
Trichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride (Chloroethene)	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

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Table 5.4-28 Summary of Discrete Groundwater Sample Detections Associated with Well LF7GW08, Fill Site 7, Follow-on RI (page 3 of 3)

Sample ID	LF7SB24	LF7SB24	LF7SB38	LF7SB39	LF7SB40	LF7SB42	LF7SB43
Sample Depth (ft bgs)	17.5	25.5	6.0	5.5	5.5	9.0	9.0
Sample Date	12/08/94	12/08/94	01/09/95	01/09/95	01/09/95	04/04/95	04/04/95
INORGANICS (µg/L)							
Lead	<5	9	<5	8	<5	<5	<5
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
Trichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA
Vinyl chloride (Chloroethene)	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 5.4-29 Summary of Discrete Groundwater Sample Detections Associated with Well LF7GW09, Fill Site 7, Follow-on RI (page 1 of 2)

Sample ID	LF7SB16	LF7SB16	LF7SB17	LF7SB17	LF7SB17	LF7SB17	LF7SB18
Sample Depth (ft bgs)	14.5	24.5	7.0	8.0	14.5	24.5	14.0
Sample Date	12/13/94	12/14/94	12/13/94	04/04/95	12/13/94	12/13/94	12/12/94
INORGANICS (µg/L)							
Lead	NA	NA	130 [an]	<5	NA	NA	7
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
No detections above reporting limit							

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

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Table 5.4-29 Summary of Discrete Groundwater Sample Detections Associated with Well LF7GW09, Fill Site 7, Follow-on RI (page 2 of 2)

Sample ID	LF7SB18	LF7SB19	LF7SB19	LF7SB19	LF7SB25	LF7SB25
Sample Depth (ft bgs)	25.0	6.0	13.5	24.5	14.4	24.2
Sample Date	12/12/94	12/12/94	12/12/94	12/12/94	12/09/94	12/09/94
INORGANICS (µg/L)						
Lead	NA	17	NA	NA	NA	NA
VOLATILE ORGANICS (µg/L)						
Trichloroethene And Breakdown Products						
No detections above reporting limit						

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = e[redacted]ted value

Table 5.4-30 Comparison of Filtered and Unfiltered Discrete Groundwater Sample Results for Lead, Follow-on RI (page 1 of 3)

Sample ID	LF7GW08	LF7SB17	LF7SB17	LF7SB42	LF7SB43
Sample Depth (ft bgs)	8.0	7.0	8.0	9.0	9.0
Sample Date	04/04/95	12/13/94	04/04/95	04/04/95	04/04/95
INORGANICS (μg/L)					
Lead - unfiltered	<5	130[an]	<5	<5	<5
Lead - filtered	<5	NA	<5	<5	<5

μg/L = microgram per liter
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 5.4-30 Comparison of Filtered and Unfiltered Discrete Groundwater Sample Results for Lead, Follow-on RI (page 2 of 3)

Sample ID	286SB09	286SB09	286SB13	286SB13	286SB14	286SB14
Sample Depth (ft bgs)	11.5	11.5	11.0	20.0	10.0	22.0
Sample Date	01/04/95	04/13/95	04/12/95	04/13/95	04/14/95	04/14/95
INORGANICS (µg/L)						
Lead - unfiltered	540	55	170	<5	<5	10
Lead - filtered	NA	<5	<5	<5	<5	<5

µg/L = microgram per liter
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 5.4-30 Comparison of Filtered and Unfiltered Discrete Groundwater Sample Results for Lead, Follow-on RI (page 3 of 3)

Sample ID	286SB15	286SB15
Sample Depth (ft bgs)	10.5	20.0
Sample Date	04/13/95	04/13/95
INORGANICS (µg/L)		
Lead - unfiltered	590	28
Lead - filtered	<5	<5

µg/L = microgram per liter
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 5.4-31 Summary of Surface Soil Sample Detections, Building 609, Initial RI

Sample ID	609SS01	609SS02	609SS03
Sample Date	12/14/90	12/14/90	12/14/90
PESTICIDES (μg/g)			
ppDDE	<0.008	<0.008	0.008
ppDDT	0.014	<0.007	0.13[a]
Dieldrin	0.008	0.012	0.010

μg/g = micrograms per gram
< = less than certified reporting limit
ppDDE = 2,2-Bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-Bis(p-chlorophenyl)-1,1,1-trichloroethane
[a] = diluted sample

Table 5.4-32 Summary of Soil Boring Sample Detections, Building 633, Follow-on RI (page 1 of 3)

Sample ID	633SB01	633SB01	633SB02	633SB02	633SB03	633SB03	633SB04
Sample Depth (ft bgs)	0.5	2.0	0.5	2.0	0.5	2.0	0.5
Sample Date	12/07/94	12/07/94	12/07/94	12/07/94	12/07/94	12/07/94	12/07/94
INORGANICS (µg/g)							
Lead-XRF	222	111	616	434	303	384	<25
Lead	282	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-32 Summary of Soil Boring Sample Detections, Building 633, Follow-on RI (page 2 of 3)

Sample ID	633SB04	633SB05	633SB05	633SB06	633SB06	633SB07	633SB07
Sample Depth (ft bgs)	2.0	0.5	2.0	0.0	3.0	0.0	3.0
Sample Date	12/07/94	12/07/94	12/07/94	01/05/95	01/05/95	01/05/95	01/05/95
INORGANICS (µg/g)							
Lead-XRF	162	371	659	<25	<25	<25	<25
Lead	NA	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-32 Summary of Soil Boring Sample Detections, Building 633, Follow-on RI (page 3 of 3)

Sample ID	633SB08	633SB08	633SB09	633SB09	633SB10	633SB10
Sample Depth (ft bgs)	0.0	2.5	0.0	2.5	0.0	2.5
Sample Date	01/05/95	01/05/95	01/05/95	01/05/95	01/05/95	01/05/95
INORGANICS (µg/g)						
Lead-XRF	<25	<25	<25	<25	61	<25
Lead	NA	162	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 5.4-33 Summary of Soil Boring Sample Detections, Crissy Field Sewer Lift Station, Follow-on RI (page 1 of 2)

Sample ID	CFLSSB01	CFLSSB01	CFLSSB02	CFLSSB02	CFLSSB03	CFLSSB04
Sample Depth (ft bgs)	0.0	4.0	0.0	3.0	0.5	0.5
Sample Date	11/18/94	11/18/94	11/18/94	11/18/94	11/20/94	11/19/94
INORGANICS (µg/g)						
Aluminum	8420	8600	7620	7010	17500[a]	8960
Arsenic	2.44[a]	1.58[a]	2.13[a]	3.86[a]	4.84[a]	2.31 [an]
Barium	68.8	35.2	119	55.7	42.3	91.9
Beryllium	0.228	0.207	0.203	0.178	0.642	0.413
Calcium	9340	2920	4280	3440	1950	3430
Chromium	89.1	58.0	64.1	58.3	26.9	49.2
Cobalt	12.8	12.0	9.22	8.21	12.0	11.2
Copper	15.2[n]	9.03[n]	33.2[n]	10.9[n]	41.1	165
Cyanide	<0.250	<0.250	<0.250	0.475	20.4[a]	<0.250
Iron	14600	12300	12900	12100	34000[a]	13800
Lead	30.6	3.94	603	7.06	48.9	40.8
Magnesium	9190	2430	3470	3020	8730	3030
Manganese	300	88.1	253	227	766	289
Mercury	<0.0590	<0.0590	0.168	<0.0590	<0.0590	0.130
Nickel	110	31.2	41.3	48.1	25.6	36.7
Potassium	557	340	692	382	613	881
Selenium	<0.416	<0.416	<0.416	<0.416	<1.66[a]	3.68[a]
Sodium	91.3	86.6	99.7	97.7	46.5	105
Vanadium	39.8	42.4	33.3	35.0	36.2	34.7
Zinc	54.2	22.9	139	25.2	66.0	68.6
VOLATILE ORGANICS (µg/g)						
No detections above reporting limit						

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 5.4-33 Summary of Soil Boring Sample Detections, Crissy Field Sewer Lift Station, Follow-on RI (page 2 of 2)

Sample ID	CFLSSB01	CFLSSB01	CFLSSB02	CFLSSB02	CFLSSB03	CFLSSB04
Sample Depth (ft bgs)	0.0	4.0	0.0	3.0	0.5	0.5
Sample Date	11/18/94	11/18/94	11/18/94	11/18/94	11/20/94	11/19/94
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction						
No detections above reporting limit						
TPH-gas fraction						
No detections above reporting limit						

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 5.4-34 Summary of Discrete Groundwater Sample Detections, Crissy Field Sewer Lift Station, Follow-on RI (page 1 of 1)

Sample ID	CFLSSB01	CFLSSB03
Sample Depth (ft bgs)	7.0	7.0
Sample Date	11/18/94	11/20/94
INORGANICS (µg/L)		
Aluminum	187000	128[f]
Arsenic	79.0[a]	<1.70
Barium	1100	62.0
Beryllium	3.00	1.00[f]
Calcium	64000	36700
Chromium	1120	<5.00
Cobalt	146	<7.00
Copper	352[a]	1.59[f]
Iron	268000	1100
Lead	114[a]	1.71[f]
Magnesium	93700	34100
Manganese	2140	217
Mercury	0.900[f]	<0.110
Nickel	1040[a]	7.56
Potassium	22000	2210
Sodium	59400	33300
Thallium	1.57[f]	<0.811
Vanadium	549	<4.00
Zinc	581	6.00
MISCELLANEOUS PARAMETERS (µg/L)		
Alkalinity (Total as CaCO3)	19000	257000
Bicarbonate Alkalinity	19000	257000
Chloride	40600	19400
Nitrate	2900	1100
Sulfate	42000	56500
Total Dissolved Solids	360000	348000
TOTAL PETROLEUM HYDROCARBONS (µg/L)		
TPH-diesel fraction		
No detections above reporting limit		
TPH-gas fraction		
No detections above reporting limit		

µg/L = microgram per Liter
< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.1-1 Summary of 1984 Groundwater Sample Detections, Building 900s Series Study Area, USAEHA[+]

Sample ID USAEHA RLSA Sample Date	PSF-02 937GW02 03/84	PSF-03 937GW03 03/84	PSF-03 937GW03 05/84	PSF-04 937GW04 05/84	PSF-06 937GW06 05/84	PSF-11 937GW11 03/84	PSF-13 937GW13 05/84	PSF-19 937GW19 05/84	PSF-20 937GW20 05/84
VOLATILE ORGANICS (μg/L)									
Benzene	570	35	51	<3	<3	85	<3	<3	<3
Chlorobenzene	<10	13	13	<3	<3	<10	<3	<3	<3
2-Chloroethylvinyl Ether	<10	<10	<3	8	7	<10	<3	<3	<3
1,1-Dichloroethane	29	<10	19	<3	<3	<10	<3	<3	<3
1,2-Dichloroethane	390	<10	<3	<3	<3	<10	<3	<3	<3
1,2-Dichloroethene(trans)	<10	<10	80	3	<3	<10	<3	<3	<3
1,2-Dichloropropane	<10	<10	5	<3	<3	<10	<3	<3	<3
Ethyl Benzene	430	23	17	<3	<3	250	<3	<3	<3
Tetrachloroethylene	15	<10	<3	<3	<3	<10	<3	<3	<3
1,1,1-Trichloroethane	11	<10	<3	<3	<3	<10	<3	<3	<3
Trichloroethene	<10	390	34	<3	<3	53	<3	<3	<3
Toluene	1300	110	86	<3	<3	740	<3	<3	<3
SEMIVOLATILE ORGANICS (μg/L)									
1,2-Dichlorobenzene	<10	10	20	<10	NR	Trace	<10	<10	<10
2,4-Dimethylphenol	2200	Trace	30	<25	NR	25	<25	<25	<25
Naphthalene	220	<10	<10	<10	NR	30	<10	<10	<10

[+] USAEHA, 1984
μg/L = micrograms per liter
< = less than method detection limit
NR = not reported

Table 6.1-2 Summary of Soil Boring Detections, Fall 1991 and 1992, Building 937 Area, IRA (page 1 of 3)

Sample ID	937SB08	937SB09	937SB10	937SB11	937SB12	937SB13	937SB13
Sample Depth (ft bgs)	5.2	4.1	5.0	4.8	6.0	3.6	5.6
Depth to Water (ft bgs)	6.2	7.2	6.6	5.8	7.0	6.6	6.6
Sample Date	10/10/91	10/10/91	10/10/91	10/10/91	10/11/91	10/11/91	10/11/91
INORGANICS (μg/g)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS (μg/g)							
Chlorobenzene	<0.002	0.10	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	0.18	<0.002	<0.002	<0.002	<0.002	<0.002
Methylene Chloride	<0.040	<0.040	<0.040[a]	<0.040[a]	<0.040	<0.040	<0.040
Methylethyl Ketone	<0.005	<0.005	0.009[a]	0.016[a]	<0.005	<0.005	<0.005
Toluene	<0.002	0.011	0.008	0.004	0.005	<0.002	<0.002
Xylenes	<0.002	0.19	<0.002	<0.002	<0.002	<0.002	<0.002
TOTAL PETROLEUM HYDROCARBONS (μg/g)							
TRPH	<10	1,000	<10	<10	<10	<10	70
TPH-diesel fraction	NA	NA	NA	NA	NA	NA	NA
TPH-gas fraction	NA	NA	NA	NA	NA	NA	NA

μg/g = micrograms per gram
ft bgs = feet below ground surface
NA = not analyzed
< = less than certified reporting limit or method detection limit
[a] = data affected by blank contamination
Detectio[illegible]own in bold type

Table 6.1-2 Summary of Soil Boring Detections, Fall 1991 and 1992, Building 937 Area, IRA (Page 2 of 3)

Sample ID	937SB14	937SB14	937SB15	937SB15	937SB16	937SB16
Sample Depth (ft bgs)	3.0	6.5	3.0	6.5	3.0	6.5
Depth to Water (ft bgs)	6.0	6.0	6.0	6.0	6.5	6.5
Sample Date	10/27/92	10/27/92	10/27/92	10/27/92	10/27/92	10/27/92
INORGANICS (μg/g)						
Aluminum	4100.000	4600.000	4700.000	4100.000	4700.000	4500.000
Antimony	10.000	14.000	11.000	7.000	13.000	11.000
Arsenic	3.000	1.400	0.950	1.100	1.200	0.570
Barium	5.400	8.400	6.800	9.300	8.900	14.000
Calcium	2200.000	1600.000	5000.000	2300.000	3000.000	2200.000
Chromium	28.000	92.000	36.000	81.000	46.000	74.000
Cobalt	<2.500	9.100	<2.500	<2.500	3.600	<2.500
Copper	<0.500	1.300	<0.500	<0.500	<0.500	<0.500
Iron	9200.000	9400.000	9600.000	7400.000	10000.000	9000.000
Lead	3.000	1.500	1.700	5.100	4.400	1.800
Magnesium	4100.000	5000.000	4800.000	3000.000	6600.000	4700.000
Manganese	100.000	69.000	120.000	64.000	120.000	79.000
Mercury	<0.010	0.017	<0.010	<0.010	0.012	<0.010
Nickel	31.000	110.000	35.000	20.000	50.000	32.000
Potassium	600.000	590.000	500.000	540.000	460.000	580.000
Sodium	130.000[a]	150.000[a]	180.000	130.000[a]	130.000[a]	130.000[a]
Vanadium	16.000	14.000	19.000	14.000	19.000	15.000
Zinc	21.000	18.000	18.000	14.000	20.000	14.000
VOLATILE ORGANICS (μg/g)						
Chlorobenzene	<0.100	<0.100	<0.100	8.520	<0.100	<0.100
Ethylbenzene	<0.100	<0.100	<0.100	16.000	<0.100	<0.100
Methylene Chloride	<0.250	<0.250	<0.250	<10.000	2.800	<0.250
Methylethyl Ketone	<0.500	<0.500	<0.500	<20.000	<0.500	<0.500
Toluene	<0.100	<0.100	<0.100	<4.000	<0.100	0.110
Xylenes	<0.100	<0.100	<0.100	20.000	<0.100	0.420
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TRPH	NA	NA	NA	NA	NA	NA
TPH-diesel fraction	<1.000	<1.200	<1.000	4800.000	2.700	510.000
TPH-gas fraction	<1.000	<1.000	<1.000	3900.000	<1.000	120.000

μg/g = micrograms per gram
ft bgs = feet below ground surface
NA = not analyzed
< = less than certified reporting limit or method detection limit
[a] = data affected by blank contamination
Detections shown in bold type

Table 6.1-2 Summary of Soil Boring Detections, Fall 1991 and 1992, Building 937 Area, IRA (Page 3 of 3)

Sample ID	937GW36	937GW36	937GW37	937GW37	937GW38	937GW38	937GW39	937GW39
Sample Depth (ft bgs)	3.0	6.5	3.0	6.5	3.0	6.5	3.0	6.5
Depth to Water (ft bgs)	6.5	6.5	8.0	8.0	6.0	6.0	6.5	6.5
Sample Date	10/26/92	10/26/92	10/27/92	10/27/92	10/28/92	10/28/92	10/29/92	10/29/92
INORGANICS (μg/g)								
Aluminum	4500.000	4900.000	3500.000	3600.000	4400.000	3600.000	6900.000	3900.000
Antimony	11.000	11.000	7.400	9.600	10.000	8.000	<5.000	12.000
Arsenic	<0.250	0.600	1.100	5.600	1.500	2.000	3.200	1.700
Barium	10.000	16.000	16.000	7.300	6.600	7.200	33.000	8.000
Calcium	1900.000	5000.000	2300.000	1600.000	2100.000	1400.000	8500.000	2700.000
Chromium	32.000	170.000	32.000	48.000	32.000	46.000	510.000	78.000
Cobalt	2.600	3.600	<2.500	<2.500	2.700	8.300	20.000	<2.500
Copper	1.100	<0.500	<0.500	12.000	<0.500	28.000	10.000	<0.500
Iron	9900.000	18000.000	7200.000	8900.000	10000.000	6900.000	22000.000	9400.000
Lead	2.300	8.400	3.200	1.400	2.800	1.400	28.000	1.400
Magnesium	4600.000	2800.000	2800.000	3300.000	4600.000	2800.000	34000.000	5100.000
Manganese	110.000	130.000	86.000	56.000	120.000	48.000	300.000	73.000
Mercury	<0.010	<0.010	0.021	<0.010	0.013	0.013	0.030	<0.010
Nickel	34.000	36.000	22.000	26.000	34.000	81.000	260.000	51.000
Potassium	610.000[a]	430.000[a]	380.000[a]	680.000	540.000[a]	460.000	600.000	570.000[a]
Sodium	150.000[a]	110.000[a]	88.000[a]	1700.000	150.000[a]	280.000	170.000	140.000[a]
Vanadium	17.000	45.000	14.000	15.000	17.000	10.000	30.000	16.000
Zinc	18.000	15.000	24.000	18.000	20.000	42.000	44.000	19.000
VOLATILE ORGANICS (μg/g)								
Chlorobenzene	<0.100	<5.000	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Ethylbenzene	<0.100	<5.000	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Methylene Chloride	<0.250	<12.500	<0.250	<0.250	<0.250	<0.250	<0.250	0.320
Methylethyl Ketone	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Toluene	<0.100	<5.000	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Xylenes	<0.100	60.000	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
TOTAL PETROLEUM HYDROCARBONS (μg/g)								
TRPH	NA	NA	NA	NA	NA	NA	NA	NA
TPH-diesel fraction	<1.000	6500.000	<1.000	3.600	<1.300	<1.300	1.200	2.100
TPH-gas fraction	<1.000	3300.000	<1.000	<1.000	<1.000	<1.000	<1.000	<1.000

μg/g = micrograms per gram
ft bgs = feet below ground surface
NA = not analyzed
< = less than certified reporting limit or method detection limit
[a] = data affected by blank contamination
Detectio wn in bold type

Table 6.1-3 Target Analyte List, Building 937 Area, IRA

Inorganic Compounds

+	Aluminum	+	Lead
+	Antimony	+*	Magnesium
+	Arsenic	+	Manganese
+	Barium	+	Mercury
+	Beryllium	+	Nickel
*	Bicarbonate Alkalinity	*	Nitrate
+	Cadmium	+*	Potassium
+	Calcium	+	Selenium
+	Chromium	+	Silver
*	Chloride	+*	Sodium
+	Cobalt	*	Sulfate
+	Copper	+	Thallium
*	Fluoride	+	Vanadium
+*	Iron	+	Zinc

Miscellaneous Parameters

*	TPH
+	TPH-diesel fraction
+	TPH-gas fraction

Volatile Organic Compounds

+*	Acetone	+	cis-1,3-Dichloropropene
+*	Benzene	+*	Dibromochloromethane
+*	Bromodichloromethane	+*	Ethylbenzene
+*	Bromoform	+	Freon 113
+*	Bromomethane	+	2-Hexanone
+*	2-Butanone	+*	4-Methyl-2-pentanone
+*	Carbon Tetrachloride	+*	Methylene Chloride
+*	Carbon Disulfide	+*	Styrene
+*	Chlorobenzene	+*	1,1,2,2-Tetrachloroethane
+*	Chloroethane	+*	Tetrachloroethene
*	Chloroethene	+*	Toluene
+	2-Chloroethylvinylether	+*	trans-1,2-Dichloroethene
+*	Chloroform	+*	trans-1,3-Dichloropropene
*	Chloromethane	+*	1,1,1-Trichloroethane
+*	1,1-Dichloroethane	+*	1,1,2-Trichloroethane
+*	1,1-Dichloroethene	+	Trichloroethene
*	1,2-Dichloroethane	+*	Vinyl Acetate
+*	1,2-Dichloropropane	+*	Vinyl Chloride
+	cis-1,2-Dichloroethene	+*	Xylenes (total)

* = October and December 1991 and March 1992 groundwater samples, and October 1991 soil samples

\+ = Tank Removal Action, summer and fall 1992

Table 6.3-1 Calculated Horizontal Hydraulic Gradients and Tidal Heights, Building 900s Series Study Area

Date of Water Level Measurements	LOW TIDE		HIGH TIDE	
	Hydraulic Gradient (ft/ft)	Bay Stage (ft-mll)	Hydraulic Gradient (ft/ft)	Bay Stage (ft-mll)
RI Tidal Study 1, 10/24/90	0.001	0.50	0.001	5.26
RI Tidal Study 2, 10/28/90	0.001	0.67	0.002-0.006	5.01
RI Tidal Study 3, 11/03/90	0.005-0.01	-1.53	0.03	6.93
IRA Tidal Study 1, 10/06/91	0.002	0.53	0.001-0.002	6.13
IRA Tidal Study 2, 10/12/91	0.004	0.54	0.002	6.10
IRA Tidal Study 3, 10/20/91	0.002-0.003	1.52	0.001	6.08
IRA Tidal Study 4, 10/27/91	0.001-0.003	-0.84	0.001-0.002	6.19
IRA Tidal Study 5, 11/03/91	0.002	0.05	0.019-0.001	6.05
RI, 11/09/92 - Shallow wells	0.002-0.02	-0.04	0.001-0.02	6.10
RI, 11/09/92 - Deep wells	0.002-0.012	-0.04	0.002-0.007	6.10
Follow-on RI, 3/16/95 - Shallow Wells	0.004-0.01	0.02	0.003-0.01	5.40
Follow-on RI, 3/16/95 -Deep Wells	0.007	0.02	0.004	5.40

Table 6.3-2 Calculated Hydraulic Conductivity, Building 900s Series Study Area

	Hydraulic Conductivity (ft/day)
SEI 1986 Rising-Head Slug Tests[1]	
Site ID	
937GW01	< 1
937GW04	19
937GW08	58
937GW10	35
937GW13	6
937GW19	7
937GW22	7
1990 RI Tidal Studies[2]	
Tidal Study 1	150
Tidal Study 2	850
Tidal Study 3	1,000
IRA 1991 Rising-Head Slug Tests[3]	
Site ID	
937GW23	49
937GW24	110
937GW26	31
937GW32	48
937GW33	81
937GW34	41

< less than

1 SEI, 1986

2 Specific yield assumed to be 0.20
Average saturated thickness = 40 ft

3 RLSA, 1992

Table 6.4-1 Summary of Soil Boring Sample Detections, Building 920, Follow-on RI (page 1 of 1)

Sample ID	920SB01	920SB01	920SB01
Sample Depth (ft bgs)	0.5	5.0	7.5
Sample Date	11/18/94	11/18/94	11/18/94
INORGANICS (µg/g)			
Aluminum	4910	4850	4610
Arsenic	0.636	1.17[a]	4.26[a]
Barium	11.7	17.1	10.2
Beryllium	<0.100	0.131	0.135
Calcium	669	2780	3250
Chromium	675	35.3	48.2
Cobalt	66.8	5.57	3.87
Copper	21.5[n]	7.99[n]	3.16[n]
Iron	41100[a]	7230	6260
Lead	6.65	2.05	1.97
Magnesium	188000[a]	2150	1760
Manganese	538	81.3	75.1
Nickel	1270	29.4	12.1
Potassium	46.1	80.2	219
Sodium	96.7	29.4	75.6
Vanadium	16.5	22.6	39.4
Zinc	36.7	17.9	12.6

TOTAL PETROLEUM HYDROCARBONS (µg/g)

TPH-diesel fraction

No detections above reporting limit

TPH-gas fraction

No detections above reporting limit

µg/g = microgram per gram
< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 6.4-2 Summary of the Wipe Sample Detections, Buildings 924, 929-931, 933-935, 937, Initial RI (page 1 of 3)

	BUILDING 924				
Sample ID	900W01	900W02	900W18	900W19	900W20
Sample Date	10/16/90	10/16/90	10/17/90	11/07/90	11/07/90
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)					
Bis(2-ethylhexyl) phthalate	0.01	0.001[d]	<0.22	<0.22	<0.22
Butylbenzyl phthalate	<0.001	<0.001	<0.22	<0.22	<0.22
Dimethyl phthalate	<0.001	<0.001	<0.14	<0.14	<0.14
Di-n-butylphthalate	0.001	<0.001	<0.22	<0.22	<0.22

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
d = estimated value - below method reporting limit
Note: Samples 927W01 and 927W02 missed holding times and were not analyzed.

Table 6.4-2 Summary of the Wipe Sample Detections, Buildings 924, 929-931, 933-935, 937, Initial RI (page 2 of 3)

	BUILDING 929	BUILDING 930		BUILDING 931	BUILDING 933		BUILDING 934
Sample ID	900W04	900W05	900W06	900W07	900W08	900W09	900W16
Sample Date	10/16/90	10/16/90	10/16/90	10/16/90	10/17/90	10/17/90	11/01/90
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)							
Bis(2-ethylhexyl) phthalate	<0.01	0.002	0.01	<0.01	<0.01	0.035	0.1
Butylbenzyl phthalate	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01
Dimethyl phthalate	<0.001	<0.001	<0.009	<0.009	<0.009	<0.009	0.009
Di-n-butylphthalate	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit

Table 6.4-2 Summary of the Wipe Sample Detections, Buildings 924, 929-931, 933-935, 937, Initial RI (page 3 of 3)

	BUILDING 935	BUILDING 937					
Sample ID	900W17	900W10	900W11	900W12	900W13	900W14	900W15
Sample Date	11/01/90	11/01/90	11/01/90	11/01/90	11/01/90	11/01/90	11/01/90
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)							
Bis(2-ethylhexyl) phthalate	0.067	0.12	0.032	<0.014	0.033	0.016	0.027
Butylbenzyl phthalate	0.017	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
Dimethyl phthalate	0.010	0.011	0.013	0.010	0.016	0.012	0.012
Di-n-butyl phthalate	<0.014	0.024	<0.014	<0.014	<0.014	<0.014	<0.014

$\mu g/cm2$ = micrograms per square centimeter
< = less than certified reporting limit

Table 6.4-3 Summary of Sediment Sample Detections for Storm Drains, Building 900s Series Study Area, Initial RI

Sample ID	900SD01	900SD02	900SD03	900SD04
Sample Date*	10/26/90	10/26/90	10/26/90	10/26/90
INORGANICS (μg/g)				
Aluminum	11,100	18,600	17,400	11,900
Arsenic	<2.50	<2.50	<2.50	8.71
Barium	94.4	315	323	509
Beryllium	<0.427	0.767	<0.427	0.607
Cadmium	2.85	8.04	30.0	4.12
Calcium	12,400	14,300	14,800	13,200
Chromium	550	148	58.5	320
Cobalt	28.8	19.3	8.85	29.8
Copper	104	99.9	127	144
Cyanide	<0.250	<0.250	<0.250	0.357
Iron	54,200	35,000	24,700	150,000[a]
Lead	732	815	726	1,300[a]
Magnesium	42,200	12,000	5,610	32,800
Manganese	405	1,200	309	772
Mercury	0.106	0.143	0.254	0.794
Nickel	488	102	32.2	325
Potassium	1,010	2,030	1,340	1,360
Sodium	1,560	687	1,580	344
Vanadium	71.6	60.5	46.4	40.5
Zinc	596	660	785	1,220
VOLATILE ORGANICS (μg/g)				
1,3-Dimethylbenzene/ m-Xylene	<0.23	<0.23	0.72	<0.23
Toluene	<0.10	<0.10	0.95	<0.10
SEMIVOLATILE ORGANICS (μg/g)				
Acenaphthylene	<0.41[a]	<0.41[a]	<0.41[a]	0.64
Benzo[a]anthracene	<0.41[a]	<0.41[a]	<0.41[a]	0.97
Benzo[b]fluoranthene	<3.1[a]	<3.1[a]	<3.1[a]	0.75
Benzo[k]fluoranthene	<1.3[a]	<1.3[a]	<1.3[a]	0.85
Benzo[ghi]perylene	<1.8[a]	<1.8[a]	<1.8[a]	0.76
Bis(2-ethylhexyl) phthalate	30[a]	<4.8[a]	100[a]	<0.48
Chrysene	<0.32[a]	<0.32[a]	<0.32[a]	1.2
Fluoranthene	5[a]	<0.32[a]	<0.32[a]	2.2
Phenanthrene	<0.32[a]	<0.32[a]	<0.32[a]	5.0
Pyrene	4[a]	<0.83[a]	<0.83[a]	2.8
TOTAL PETROLEUM HYDROCARBONS (μg/g)	3,000[a]	3,000[a]	1,000[a]	300[a]

* = sample date for cyanide and all organics is 11/05/92
μg/g = micrograms per gram
< = less than certified reporting limit
NA = not analyzed
[a] = diluted sample

Table 6.4-4 Summary of Surface Soil Sample Detections, Buildings 923 and 924, Initial RI

	Building 924		Building 923
Sample ID	900SS02	900SS04	900SS05
Sample Date	10/18/90	11/09/90	11/09/90
INORGANICS (μg/g)			
Aluminum	28,000	13,700	8,920
Barium	147	170	91.4
Cadmium	4.39	2.68	<1.20
Calcium	15,200	7,490	4,480
Chromium	75.2	262	295
Cobalt	13.8	23.7	25.2
Copper	205	98.7	23.8
Iron	32,200	32,000	27,400
Lead	279	768	659
Magnesium	11,300	34,800	28,900
Manganese	395	497	438
Mercury	0.271	0.061	0.061
Nickel	121	290	321
Potassium	1,460	1,710	799
Sodium	3,090	329	187
Vanadium	72.2	43.4	46.4
Zinc	775	390	233
VOLATILE ORGANICS (μg/g)			
Methylene chloride	<4.4	GT 10	5.7
Trichlorofluoromethane*	<0.23	0.66	<0.23
SEMIVOLATILE ORGANICS (μg/g)			
Benzo[a]anthracene	<0.21[a]	<0.41[a]	0.089
Bis(2-ethylhexyl)phthalate	<2.4[a]	8[a]	<0.48
Chrysene	<0.16[a]	<0.32[a]	0.10
Fluoranthene	<0.16[a]	<0.32[a]	0.21
Phenanthrene	<0.16[a]	<0.32[a]	0.12
Pyrene	<0.42[a]	<0.83[a]	0.16

* = not on target analyte list: additional information supplied by lab
μg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
a = diluted sample

Table 6.4-5 Summary of Surface Soil Sample Detections, Building 900s Series Study Area, Feasibility Study (page 1 of 6)

Sample ID	900SS11	900SS12	900SS13	900SS14	900SS15	900SS16	900SS17
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Date	11/03/92	11/03/92	11/03/92	11/03/92	11/03/92	11/03/92	11/03/92
INORGANICS (µg/g)							
Aluminum	13000	9700	9000	6800	1700	5500	7500
Arsenic	3.8[a]	4.6[a]	8.8[a]	1.4	1.3	0.53	3.4
Barium	160	110	100	130	140	120	470
Cadmium	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	14
Calcium	5100	5500	4200	2100	1100	5400	6000
Chromium	290	82	220	300	190	610	830
Cobalt	20	8.9	17	10	<2.5	29	22
Copper	56	51	86	12	3.3	28	760
Iron	24000	19000	21000	14000	5800	28000	45000
Lead	380	390	1700	1300	1000	1300	4700
Magnesium	17000	6400	27000	6200	2500	57000	23000
Manganese	660	370	450	250	81	400	520
Mercury	0.078	0.049	0.069	0.11	0.094	0.069	0.24
Nickel	200	71	270	77	19	510	210
Potassium	1300	850	830	360	250	390	950
Silver	0.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium	100	130	150	390	86	110	190
Thallium	<5	<5	<5	<5	<5	<5	<5
Vanadium	35	36	28	24	3.1	38	30
Zinc	170	180	160	330	210	660	1700
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	7.2	21	20	37	<140	130	120

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.4-5 Summary of Surface Soil Sample Detections, Building 900s Series Study Area, Feasibility Study (page 2 of 6)

Sample ID	900SS11	900SS12	900SS13	900SS14	900SS15	900SS16	900SS17
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Date	11/03/92	11/03/92	11/03/92	11/03/92	11/03/92	11/03/92	11/03/92

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.4-5 Summary of Surface Soil Sample Detections, Building 900s Series Study Area, Feasibility Study (page 3 of 6)

Sample ID	900SS18	900SS19	900SS20	900SS21	900SS22	950SS04	973SS04
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Date	11/03/92	11/03/92	11/03/92	11/04/92	11/05/92	11/05/92	11/04/92
INORGANICS (µg/g)							
Aluminum	4300	10000	8500	8000	2100	6200	10000
Arsenic	<0.25	0.41	6.2[a]	9.1[a]	NA	NA	<2.5
Barium	42	96	430	560	53	50	430
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium	2600	5500	3700	4800	1200	2200	970
Chromium	960	660	1	250	71	680	43
Cobalt	48	45	11	22	<2.5	53	11
Copper	44	37	33	34	1.6	16	100
Iron	31000	34000	17000	23000	4000	30000	24000
Lead	450	520	590	560	370	89	410
Magnesium	130000	120000	15000	29000	1900	1000000[a]	2500
Manganese	440	450	360	510	39	500	2200
Mercury	0.094	0.059	0.15	0.32	0.02	0.29	0.15
Nickel	1000	930	160	300	14	1100	30
Potassium	210	230	980	800	440	590	1800
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium	72	93	120	190	130	91	530
Thallium	9.9[f]	<5	<5	<5	<5	6.9	<5
Vanadium	19	32	38	39	4.7	31	31
Zinc	100	340	520	810	240	87	240
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	9.9	11	12[a]	35	920	75	200

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.4-5 Summary of Surface Soil Sample Detections, Building 900s Series Study Area, Feasibility Study (page 4 of 6)

Sample ID	900SS18	900SS19	900SS20	900SS21	900SS22	950SS04	973SS04
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Date	11/03/92	11/03/92	11/03/92	11/04/92	11/05/92	11/05/92	11/04/92
TPH-gas fraction							
No detections above reporting limit							

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.4-5 Summary of Surface Soil Sample Detections, Building 900s Series Study Area, Feasibility Study (page 5 of 6)

Sample ID	973SS05	973SS06	973SS07
Sample Depth (ft bgs)	0.0	0.0	0.0
Sample Date	11/04/92	11/05/92	11/05/92
INORGANICS (µg/g)			
Aluminum	3800	4700	5800
Arsenic	22	1.3	<2.5
Barium	130	77	430
Cadmium	<0.5	<0.5	<0.5
Calcium	8900	2800	630000[a]
Chromium	110	70	85
Cobalt	9.1	3.4	8.7
Copper	19	13	19
Iron	12000	10000	13000
Lead	4000	300	880
Magnesium	14000	6600	14000
Manganese	1200	430	860
Mercury	0.071	0.22	0.28
Nickel	160	62	120
Potassium	630	870	910
Silver	<0.5	<0.5	<0.5
Sodium	140	200	190
Thallium	<5	<5	<5
Vanadium	15	15	23
Zinc	92	76	72
TOTAL PETROLEUM HYDROCARBONS (µg/g)			
TPH-diesel fraction	170[a]	43	87

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.4-5 Summary of Surface Soil Sample Detections, Building 900s Series Study Area, Feasibility Study (page 6 of 6)

Sample ID	973SS05	973SS06	973SS07
Sample Depth (ft bgs)	0.0	0.0	0.0
Sample Date	11/04/92	11/05/92	11/05/92
TPH-gas fraction			
No detections above reporting limit			

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination

Table 6.4-6 Summary of Soil Boring Sample Detections, Building 900s Series Study Area, Feasibility Study (page 1 of 1)

Sample ID	925SB01	925SB01	937SB17	937SB17	973SB01	973SB01
Sample Depth (ft bgs)	0.7	2.5	0.9	2.5	0.0	2.0
Sample Date	11/04/92	11/04/92	11/04/92	11/04/92	11/04/92	11/04/92
INORGANICS (µg/g)						
Aluminum	9000	9600	NA	9600	17000	16000
Antimony	<5	<5	NA	<5	5.3	<5
Arsenic	1.9[a]	3[a]	2	<1.2	<1.2[a]	<1.2[a]
Barium	45	59	NA	110	320	100
Calcium	3100	3500	5400	3400	7600	12000
Chromium	450	260	70	420	53	160
Cobalt	33	21	4.1	34	18	21
Copper	9.8	8	1.5	16	80	27
Iron	26000	22000	14000	27000	39000	31000
Lead	77	22	12	50	150	83
Magnesium	630000[a]	32000	4700	570000[a]	10000	31000
Manganese	410	370	180	500	1700	750
Mercury	0.051	0.058	0.016	0.055	0.031	0.053
Nickel	620	360	44	540	63	250
Potassium	460	580	420	640	1400	590
Sodium	160	170	130	130	260	260
Vanadium	39	38	40	39	82	67
Zinc	68	44	47	64	79	78
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction	4.8	7.1	12	6.3	7.3	11
TPH-gas fraction						
No detections above reporting limit						

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample

Table 6.4-7 Summary of Soil Boring Sample Detections, Buildings 923, 924, 926, 927, 929, 930, 931, and 933, Follow-on RI (page 1 of 3)

Sample ID	92431SB01	92431SB01	92431SB02	92431SB02	92431SB03	92431SB03	92431SB04
Sample Depth (ft bgs)	0.5	2.0	0.5	2.0	0.5	2.0	0.5
Sample Date	12/06/94	12/06/94	12/06/94	12/06/94	12/06/94	12/06/94	12/06/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	<25	<25	34.1	<25	<25
VOLATILE ORGANICS (µg/g)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit

Table 6.4-7 Summary of Soil Boring Sample Detections, Buildings 923, 924, 926, 927, 929, 930, 931, and 933, Follow-on RI (page 2 of 3)

Sample ID	92431SB04	92431SB05	92431SB05	92431SB06	92431SB06	92431SB07	92431SB07
Sample Depth (ft bgs)	2.0	0.5	2.0	0.5	2.0	0.5	2.0
Sample Date	12/06/94	12/06/94	12/06/94	12/12/94	12/12/94	12/12/94	12/12/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	57.3	<25	<25	<25	<25
VOLATILE ORGANICS (µg/g)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit

Table 6.4-7 Summary of Soil Boring Sample Detections, Buildings 923, 924, 926, 927, 929, 930, 931, and 933, Follow-on RI (page 3 of 3)

Sample ID	92431SB08	92431SB08
Sample Depth (ft bgs)	0.5	2.0
Sample Date	12/12/94	12/12/94
INORGANICS (µg/g)		
Lead-XRF	<25	<25
VOLATILE ORGANICS (µg/g)		
No detections above reporting limit		

µg/g = microgram per gram

< = less than reporting limit

Table 6.4-8 Summary of Wipe Sample Detections, Building 926, Initial RI

Sample ID	900W03	926W01	926W02
Sample Date	10/16/90	10/11/90	10/11/90
INORGANICS ($\mu g/cm^2$)			
Aluminum	NA	1,870	248
Barium	NA	70.8	28.7
Calcium	NA	5,300	828
Chromium	NA	32.5	<7.32
Copper	NA	76.2	<7.32
Iron	NA	15,500	1,160
Magnesium	NA	718	144
Manganese	NA	83.5	8.35
Sodium	NA	1,920	1,460
Lead	NA	30,000[a]	4,000[a]
Vanadium	NA	8.31	<7.32
Zinc	NA	105	26.7
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)			
Bis(2-ethylhexyl) phthalate	0.006	NA	NA

NA = not analyzed
$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
[a] = diluted sample

Table 6.4-9 Summary of Soil Boring Sample Detections, Building 927, Follow-on RI (page 1 of 1)

Sample ID	927SB01	927SB01	927SB02	927SB02
Sample Depth (ft bgs)	0.5	2.0	0.5	2.0
Sample Date	12/06/94	12/06/94	12/06/94	12/06/94

POLYCHLORINATED BIPHENYLS (µg/g)

No detections above reporting limit

µg/g = microgram per gram

Table 6.4-10 Summary of Surface Soil Sample Detections, Buildings 929, 930, 931, 933 and 935, Initial RI

	Bldg 929	Bldgs 930 & 931		Bldg 933	Bldg 935
Sample ID	900SS07	900SS01	900SS06	900SS08	900SS10
Sample Date	11/09/90	10/15/90	11/09/90	11/09/90	11/09/90
INORGANICS (μg/g)					
Aluminum	4,800	14,000	11,000	8,450	10,400
Arsenic	NA	2.75	NA	NA	NA
Barium	207	548	458	97.0	156
Cadmium	<1.20	87.3	56.4	<1.20	3.69
Calcium	4,550	11,600	9,500	5,450	5,530
Chromium	590	342	435	443	88.2
Cobalt	36.9	14.4	12.9	39.3	11.1
Copper	39.4	420	476	47.9	110
Iron	31,900	34,100	33,600	30,900	24,600
Lead	873	1,640	2,400	339	516
Magnesium	69,300	7,610	5,700	87,000[a]	6,200
Manganese	357	368	334	414	531
Mercury	0.058	0.217	0.308	6.8[a]	0.173
Nickel	533	63.1	65.0	735	60.1
Potassium	333	1,910	1,260	525	1,040
Sodium	294	522	540	128	192
Vanadium	28.1	42.4	38.4	35.6	49.7
Zinc	426	826	691	387	710
VOLATILE ORGANICS (μg/g)					
1,3-Dimethylbenzene/m-Xylene	0.60	<0.23	<0.23	<0.23	<0.23
Methylene chloride	GT 10	<4.4	GT 10	5.7	GT 10
Methylisobutyl ketone*	5.9	<0.63	<0.63	<0.63	<0.63
Tetrachloroethene	<0.16	0.40	0.49	<0.16	<0.16
Trichlorofluoromethane*	<0.23	<0.23	1.7	<0.23	<0.23
SEMIVOLATILE ORGANICS (μg/g)					
Benzo[a]anthracene	<0.041	<0.41	<0.041	<0.041	0.11
Bis(2-ethylhexyl)phthalate	1.7	<4.8[a]	3.1	3.1	<0.48
Chrysene	<0.032	<0.32[a]	<0.032	<0.032	0.14
1,4-Dichlorobenzene	<0.034	7[a]	<0.034	<0.034	<0.034
Fluoranthene	<0.032	<0.32[a]	<0.032	<0.032	0.25
Phenanthrene	0.092	<0.32[a]	<0.032	<0.032	0.18
Pyrene	<0.083	<0.83[a]	<0.083	<0.083	0.23
POLYCHLORINATED BIPHENYLS (μg/g)					
PCB 1254	0.42	<38[a]	<0.013	3.53	<3.8
PCB 1260	<0.013	<7.9[a]	0.36	<0.013	<0.79

μg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
[a] = diluted sample
NA = not analyzed
* = not on target analyte list: additional information supplied by lab

Table 6.4-11 Summary of Soil Boring Sample Detections, Buildings 931 and 950, Supplemental RI
(page 1 of 2)

Sample ID	931SB01	950SB01	950SB01
Sample Depth (ft bgs)	2.0	2.0	5.0
Sample Date	09/01/92	09/01/92	09/01/92
INORGANICS (μg/g)			
Aluminum	8400.000[a]	12000.000[a]	12000.000[a]
Arsenic	1.360	2.130	3.690
Barium	153.000	88.500	121.000
Calcium	15000.000[a]	9100.000[a]	4860.000
Chromium	913.000	657.000	427.000
Cobalt	67.500	58.800	42.200
Copper	37.200	36.200	29.400
Iron	44000.000[a]	63000.000[a]	38000.000[a]
Lead	57.000[a]	330.000[a]	140.000[a]
Magnesium	160000.000[a]	100000.000[a]	18000.000[a]
Manganese	870.000	750.000	557.000
Mercury	<0.027	0.055	0.180
Nickel	1300.000	1060.000	667.000
Potassium	606.000	443.000	863.000
Sodium	177.000	189.000	207.000
Vanadium	35.900	64.900	52.400
Zinc	75.900	253.000	132.000
VOLATILE ORGANICS (μg/g)			
Trichlorofluoro-methane	<0.002	<0.002	0.004
SEMIVOLATILE ORGANICS (μg/g)			
Anthracene	<0.033	0.068	NA[g]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
NA = not analyzed
ppDDD = 2,2-bis(p-chlorophenyl)-1,1-dichloroethane
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below method detection limit
[g] = broken in analysis

Table 6.4-11 Summary of Soil Boring Sample Detections, Buildings 931 and 950, Supplemental RI (page 2 of 2)

Sample ID	931SB01	950SB01	950SB01
Sample Depth (ft bgs)	2.0	2.0	5.0
Sample Date	09/01/92	09/01/92	09/01/92
SEMIVOLATILE ORGANICS (continued) (μg/g)			
Di-n-butylphthalate	3.000	<0.920	NA[g]
Fluoranthene	<0.085	0.190	NA[g]
2-Methylnaphthalene	<0.033	0.140	NA[g]
Naphthalene	<0.033	0.230	NA[g]
Phenanthrene	<0.033	0.390	NA[g]
Pyrene	<0.033	0.420	NA[g]
ORGANOCHLORINE PESTICIDES[c] (μg/g)			
ppDDD	0.004[d]	<0.006	<0.006
ppDDE	0.004[d]	0.010	<0.006
ppDDT	0.007	<0.006	<0.006
Dieldrin	0.003[d]	<0.006	<0.006
POLYCHLORINATED BIPHENYLS			
No detections above certified reporting limit			
CHLORINATED HERBICIDES			
No detections above method detection limit			
TOTAL PETROLEUM HYDROCARBONS (μg/g)			
TPH-diesel fraction	90.000	110.000	<1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
NA = not analyzed
ppDDD = 2,2-bis(p-chlorophenyl)-1,1-dichloroethane
ppDDE = 2,2-bis(p-chlorophenyl)-1,1-dichloroethene
ppDDT = 2,2-bis(p-chlorophenyl)-1,1,1-trichloroethane
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below method detection limit
[g] = broken in analysis

Table 6.4-12 Summary of Soil Sample Detections, Building 937, Initial RI (page 1 of 2)

Sample ID	937SO01A	937SO01B	937SO02A	937SO02B	937SO03A	937SO03B	937SO04A	937SO04B
Sample Depth (ft bgs)	1.5	7.5	4.5	7.5	4.5	7.5	4.5	9.0
Sample Date	10/09/90	10/09/90	10/10/90	10/10/90	10/11/90	10/11/90	10/10/90	10/10/90
INORGANICS (μg/g)								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS (μg/g)								
Acetone	<3.3	<3.3	<3.3	8.9	<3.3	<3.3	<3.3	<3.3
Chlorobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	8.5	<0.10	<0.10
Methylene chloride	<4.4	<4.4	<4.4	GT 10	<4.4	<4.4	<4.4	<4.4
SEMIVOLATILE ORGANICS (μg/g)								
Bis(2-ethylhexyl)phthalate	10[a]	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	1.6
Chrysene	<0.32[a]	<0.032	<0.032	<0.032	0.57	<0.032	<0.032	<0.032
1,2-Dichlorobenzene	<0.42[a]	<0.042	<0.042	<0.042	0.28	<0.042	<0.042	<0.042
Fluoranthene	<0.32[a]	<0.032	<0.032	0.17	<0.032	<0.032	<0.032	<0.032
Fluorene	<0.65[a]	<0.065	<0.065	<0.065	<0.065	0.17	<0.065	<0.065
2-Methylnaphthalene	<0.32[a]	<0.032	<0.032	<0.032	<0.032	1.7	<0.032	<0.032
Naphthalene	<7.4[a]	<0.74	<0.74	<0.74	<0.74	7.4	<0.74	<0.74
Phenanthrene	<0.32[a]	<0.032	<0.032	<0.032	0.21	0.29	<0.032	<0.032

μg/g = micrograms per gram
[a] = diluted sample
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed

Table 6.4-12 Summary of Soil Sample Detections, Building 937, Initial RI (page 2 of 2)

Sample ID	937SO05A	937SO05B	937SO06A	937SO06B	937SO07A	937SO07B	900SS03	900SS09
Sample Depth (ft bgs)	4.5	6.0	4.5	7.5	4.5	7.5	–	–
Sample Date	10/11/90	10/11/90	10/11/90	10/11/90	10/10/90	10/10/90	10/18/90	11/09/90
INORGANICS (μg/g)								
Aluminum	NA	NA	NA	NA	NA	NA	8,980	10,300
Barium	NA	NA	NA	NA	NA	NA	109	430
Cadmium	NA	NA	NA	NA	NA	NA	1.37	<1.20
Calcium	NA	NA	NA	NA	NA	NA	4,060	5,070
Chromium	NA	NA	NA	NA	NA	NA	84.1	695
Cobalt	NA	NA	NA	NA	NA	NA	7.96	48.7
Copper	NA	NA	NA	NA	NA	NA	29.4	49.0
Cyanide	NA	NA	NA	NA	NA	NA	<0.250	0.534
Iron	NA	NA	NA	NA	NA	NA	17,400	37,600
Lead	NA	NA	NA	NA	NA	NA	197	731
Magnesium	NA	NA	NA	NA	NA	NA	8,480	90,000[a]
Manganese	NA	NA	NA	NA	NA	NA	276	555
Mercury	NA	NA	NA	NA	NA	NA	0.134	0.894
Nickel	NA	NA	NA	NA	NA	NA	66.3	782
Potassium	NA	NA	NA	NA	NA	NA	1,250	789
Sodium	NA	NA	NA	NA	NA	NA	442	189
Vanadium	NA	NA	NA	NA	NA	NA	29.8	51.6
Zinc	NA	NA	NA	NA	NA	NA	224	597
VOLATILE ORGANICS (μg/g)								
Acetone	<3.3	<3.3	<3.3	<3.3	4.2	7.9	<3.3	<3.3
Chlorobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	0.24	<0.10	<0.10
Methylene chloride	<4.4	<4.4	<4.4	<4.4	<4.4	GT 10	<4.4	GT 10
SEMIVOLATILE ORGANICS (μg/g)								
Bis(2-ethylhexyl)phthalate	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<4.8[a]	<0.48
Chrysene	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.32[a]	<0.032
1,2-Dichlorobenzene	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.42[a]	<0.042
Fluoranthene	0.067	<0.032	0.078	<0.032	<0.032	<0.032	<0.32[a]	<0.032
Fluorene	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	<0.65[a]	<0.065
2-Methylnaphthalene	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.32[a]	<0.032
Naphthalene	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<7.4[a]	<0.74
Phenanthrene	<0.032	<0.032	0.11	<0.032	<0.032	<0.032	<0.32[a]	<0.032

μg/g = micrograms per gram
[a] = diluted sample
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed

Table 6.4-13 Summary of Groundwater Sample Detections, Building 900s Series Study Area, Initial RI (page 1 of 6)

Sample ID	937GW01	937GW02	937GW03+	937GW04	937GW05	937GW06	937GW07	937GW08	937GW10	937GW11
Sample Date	10/01/90	11/08/90	11/06/90	10/08/90	10/09/90	10/01/90	10/05/90	10/03/90	10/03/90	11/07/90
INORGANICS: filtered, except for cyanide (µg/L)										
Aluminum	<112	37,000	<112	<112	<112	<112	<112	<112	<112	12,400
Antimony	<60.0	143	<60.0	<60.0	87.0	<60.0	91.6	<60.0	<60.0	76.0
Arsenic	5.39	22.3	3.35	3.33	<2.35	<2.35	3.74	<2.35	5.80	31.2
Barium	230	512	6.40	37.6	83.5	84.2	66.9	90.0	168	327
Beryllium	<1.12	1.64	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12
Boron	709	422	665	386	NA	567	662	1,730	2,760	532
Cadmium	<6.78	9.09	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78
Calcium	21,100	58,900	34,100	186,000	240,000[a]	210,000	420,000	520,000[a]	360,000[a]	61,500
Chromium	<16.8	546	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8	126
Cobalt	<25.0	50.8	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Copper	<18.8	116	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8	78.4
Iron	<77.5	76,900	826	5,830	5,990	1,420	86.7	95.9	131	33,900
Lead	<4.47	350[a]	<4.47	6.13	<4.47	<4.47	5.86	6.68	6.41	1,700[a]
Magnesium	105,000	175,000	120,000	234,000	304,000	257,000	452,000	790,000	879,000	152,000
Manganese	<9.67	1,430	468	1,530	1,530	815	350	42.3	328	1,530
Nickel	<32.1	588	<32.1	<32.1	<32.1	<32.1	<32.1	<32.1	60.8	161
Potassium	1,630	14,300	12,400	23,000	47,300	36,200	56,900	170,000	255,000	12,800
Selenium	4.34	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53	14.9	17.7	<2.53
Sodium	140,000[a]	89,000[a]	46,700	600,000[a]	1,500,000[a]	1,000,000[a]	2,230,000[a]	5,800,000[a]	7,640,000	41,100
Vanadium	<27.6	167	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6	65.5
Zinc	<18.0	162	<18.0	54.2	<18.0	<18.0	367	<18.0	<18.0	47.2

µg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed
\+ = laboratory exceeded holding time; semivolatile organics resampled 02/08/91
* = not on target analyte list; additional information supplied by lab
[a] = diluted sample
[b] = analyzed as total 1,2-Dichloroethene
[c] = Well screened at bottom of aquifer. All other wells screened across water table.

Table 6.4-13 Summary of Groundwater Sample Detections, Building 900s Series Study Area, Initial RI (page 2 of 6)

Sample ID Sample Date	937GW01 10/01/90	937GW02 11/08/90	937GW03 11/06/90	937GW04 10/08/90	937GW05 10/09/90	937GW06 10/01/90	937GW07 10/05/90	937GW08 10/03/90+	937GW010 10/03/90+	937GW11 11/07/90
VOLATILE ORGANICS: filtered, except for cyanide (μg/L)										
Benzene	<1.0	400[a]	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80[a]
Chlorobenzene	<1.0	<5.0[a]	6.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10[a]
1,2-Dichloroethane	<1.0	50[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0[a]
1,1-Dichloroethene[b]	<1.0	<5.0[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0[a]
1,2-Dichloroethene[b]	<5.0	40[a]	40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25[a]
1,3-Dimethylbenzene m-xylene	<1.0	GT 800[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	300[a]
Ethylbenzene	<1.0	GT 700[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0[a]
Toluene	<1.0	GT 800[a]	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0[a]
Trichloroethene	<1.0	<5.0[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0[a]
Xylenes	<2.0	GT 2,000[a]	32	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	300[a]
Vinyl chloride/chloroethene	<12	100[a]	<12	<12	<12	<12	<12	<12	<12	<60[a]
SEMIVOLATILE ORGANICS (μg/L)										
Bis(2-ethylhexy)phthalate	<7.7	<77[a]	<7.7	<7.7	<7.7	<7.7	<7.7	<7.7	<7.7	<7.7
1,2-Dichlorobenzene	<1.2	<12[a]	3.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Methylnaphthalene	<1.3	200[a]	28	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	45
4-Methylphenol*	<2.8	<28[a]	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
Naphthalene	<0.50	100[a]	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GT 100
TOTAL PETROLEUM (μg/L) HYDROCARBONS	400	NA	NA	<100	<100	<100	<100	<100	<100	NA

μg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed
+ = laboratory exceeded holding time; semivolatile organics resampled 02/08/91
* = not on target analyte list; additional information supplied by lab
a = diluted sample
b = analyzed as total 1,2-Dichloroethene
c = Well screened at bottom of aquifer. All other wells screened across water table.

Table 6.4-13 Summary of Groundwater Sample Detections, Building 900s Series Study Area, Initial RI (page 3 of 6)

Sample ID	937GW15	937GW16	937GW17	937GW18	937GW19	937GW20	937GW21	937GW22	937GW23
Sample Date	10/02/90	10/02/90	10/02/90	10/04/90	10/04/90	10/08/90	10/05/90	10/08/90	12/12/90
INORGANICS: filtered, except for cyanide (μg/L)									
Aluminum	<112	<112	<112	<112	<112	<112	<112	<112	<112
Antimony	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	85.0	<60.0	67.8
Arsenic	<2.35	<2.35	<2.35	3.53	4.56	2.50	15.1	3.12	<2.35
Barium	12.7	4.61	58.7	32.9	98.0	14.6	178	74.6	91.3
Beryllium	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12
Boron	405	<230	613	603	<230	308	694	537	942
Cadmium	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78
Calcium	65,400	48,500	104,000	60,600	38,200	28,200	53,100	38,800	280,000[a]
Chromium	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8
Cobalt	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Copper	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8
Iron	<77.5	205	20,300	21,400	120	<77.5	3,020	2,120	209
Lead	5.60	<4.47	<4.47	<4.47	<4.47	8.82	6.68	8.55	<4.47
Magnesium	51,000	57,300	154,000	99,000	72,200	87,400	132,000	72,800	480,000
Manganese	<9.67	187	1,640	925	1,740	367	236	1,110	200
Nickel	<32.1	<32.1	<32.1	<32.1	<32.1	<32.1	<32.1	<32.1	<32.1
Potassium	4,840	10,000	20,100	10,700	4,300	7,370	8,010	13,500	127,000
Selenium	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53
Sodium	74,000[a]	83,000[a]	780,000[a]	56,000[a]	68,000[a]	150,000[a]	180,000[a]	130,000[a]	3,600,000[a]
Vanadium	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6
Zinc	<18.0	<18.0	<18.0	<18.0	<18.0	<18.0	<18.0	<18.0	<18.0

μg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed
\+ = laboratory exceeded holding time; semivolatile organics resampled 02/08/91
* = not on target analyte list; additional information supplied by lab
[a] = diluted sample
[b] = analyzed as total 1,2-Dichloroethene
[c] = Well screened at bottom of aquifer. All other wells screened across water table.

Table 6.4-13 Summary of Groundwater Sample Detections, Building 900s Series Study Area, Initial RI (page 4 of 6)

Sample ID Sample Date	937GW15+ 10/02/90	937GW16+ 10/02/90	937GW17+ 10/02/90	937GW18 10/04/90	937GW19 10/04/90	937GW20 10/08/90	937GW21 10/05/90	937GW22 10/08/90	937GW23 12/12/90
ORGANICS (μg/L)									
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethene[b]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	51
1,3-Dimethylbenzene m-xylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vinyl chloride/chloroethene	<12	<12	<12	<12	<12	<12	<12	<12	74
SEMIVOLATILE ORGANICS (μg/L)									
Bis(2-ethylhexy)phthalate	<7.7	<7.7	79	<7.7	<7.7	<7.7	<7.7	<7.7	<7.7
1,2-Dichlorobenzene	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Methylnaphthalene	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
4-Methylphenol*	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
Naphthalene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOTAL PETROLEUM HYDROCARBONS (μg/L)									
	<100	<100	<100	220	<100	<100	<100	<100	<100

μg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed
\+ = laboratory exceeded holding time; semivolatile organics resampled 02/08/91
* = not on target analyte list; additional information supplied by lab
a = diluted sample
b = analyzed as total 1,2-Dichloroethene
c = Well screened at bottom of aquifer. All other wells screened across water table.

Table 6.4-13 Summary of Groundwater Sample Detections, Building 900s Series Study Area, Initial RI (page 5 of 6)

Sample ID	937GW24	937GW026	937GW27	937GW28	937GW29[c]	937GW31[c]	937GW32[c]
Sample Date	12/12/90	12/12/90	11/28/90	11/28/90	11/29/90	12/12/90	12/14/90
INORGANICS: filtered, except for cyanide (µg/L)							
Aluminum	<112	<112	<112	<112	<112	<112	<112
Antimony	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0	<60.0
Arsenic	<2.35	<2.35	<2.35	<2.35	3.28	3.98	3.93
Barium	165	13.9	15.0	17.1	46.1	90.8	22.9
Beryllium	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12	<1.12
Boron	2,860	<230	NA	NA	NA	5,580	332
Cadmium	<6.78	<6.78	<6.78	<6.78	<6.78	<6.78	31.0
Calcium	390,000[a]	43,500	45,700	48,000	35,700	42,000	66,500
Chromium	<16.8	17.1	<16.8	<16.8	<16.8	<16.8	<16.8
Cobalt	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Copper	21.2	<18.8	<18.8	<18.8	<18.8	<18.8	<18.8
Iron	3,850	577	535	120	141	<77.5	<77.5
Lead	<4.47	<4.47	<4.47	<4.47	<4.47	<4.47	<4.47
Nickel	56.6	<32.1	<32.1	<32.1	<32.1	<32.1	<32.1
Potassium	310,000[a]	6,280	11,700	12,200	19,700	47,600	13,900
Magnesium	960,000[a]	126,000	109,000	114,000	40,100	110,000	151,000
Manganese	232	536	659	646	221	300	192
Selenium	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53	<2.53
Sodium	8,700,000[a]	180,000[a]	170,000[a]	110,000[a]	340,000[a]	1,300,000[a]	280,000[a]
Vanadium	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6	<27.6
Zinc	<18.0	<18.0	<18.0	<18.0	<18.0	<18.0	156

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NA = not analyzed
\+ = laboratory exceeded holding time; semivolatile organics resampled 02/08/91
* = not on target analyte list; additional information supplied by lab
[a] = diluted sample
[b] = analyzed as total 1,2-Dichloroethene
[c] = Well screened at bottom of aquifer. All other wells screened across water table.

Table 6.4-13 Summary of Groundwater Sample Detections, Building 900s Series Study Area, Initial RI (page 6 of 6)

Sample ID Sample Date	937GW24 12/12/90	937GW026 12/12/90	937GW27 11/28/90	937GW28 11/28/90	937GW29[c] 11/29/90	937GW31[c] 12/11/90	937GW32[c] 12/14/90
VOLATILE ORGANICS (μg/L)							
Benzene	<1.0	<1.0	<1.0	2.8	<1.0	1.1	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene[b]	<1.0	<1.0	<1.0	<1.0	<1.0	GT 150	<1.0
1,2-Dichloroethene[b]	<5.0	<5.0	<5.0	9.5	<5.0	GT 150	<5.0
1,3-Dimethylbenzene m-xylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	87	<1.0
Xylenes	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vinyl chloride/chloroethene	<12	<12	<12	77	<12	18	<12
SEMIVOLATILE ORGANICS (μg/L)							
Bis(2-ethylhexy)phthalate	<7.7	<7.7	<7.7	<7.7	<7.7	<7.7	<7.7
1,2-Dichlorobenzene	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
2-Methylnaphthalene	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
4-Methylphenol*	<2.8	42	38	17	<2.8	<2.8	<2.8
Naphthalene	<0.50	<0.50	<0.50	<0.50	<0.50	5.2	<0.50
TOTAL PETROLEUM HYDROCARBONS (μg/L)							
	<100	<100	400	200	<100	300	<100

μg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed
+ = laboratory exceeded holding time; semivolatile organics resampled 02/08/91
* = not on target analyte list; additional information supplied by lab
[a] = diluted sample
[b] = analyzed as total 1,2-Dichloroethene
[c] = Well screened at bottom of aquifer. All other wells screened across water table.

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (1 of 40)

Well 937GW01

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	820.000	26100.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	9 10	5.300	6.900
Arsenic	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	7.000	14.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	5.390	13.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	130.000	380.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	57.000	260.000
Boron (F)	1	1	708.835	708.835
Cadmium	5 6 7 8 9 10 11 12 13	7 8 9 13	0.730	3.900
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	7	0.610	0.610
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	27000.000	42300.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	21111.109	45900.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	24.000	480.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 9 11 12 13	3.000	18.000
Cobalt	5 6 7 8 9 10 11 12 13	8 9 10 11 12 13	18.000	74.000
Copper	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	6.600	31.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	9 10 11 12 13	1.600	11.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	2300.000	50300.000
Lead	5 6 7 8 9 10 11 12 13	6 8 11 12 13	4.600	12.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	13	3.400	3.400
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	120000.000	249000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	99900.000	148000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	80.000	1200.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	7 12 13	12.000	220.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	76.000	630.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 9 10 11 12 13	9.000	47.000
Potassium	5 6 7 8 9 10 11 12 13	5 6	2400.000	2800.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6	1629.630	4680.000
Selenium (F)	1 5 6 7 8 9 10 11 12 13	1	4.340	4.340
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	91500.000	122000.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	98200.000	150000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	13.000	77.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	6 9 10 12 13	10.000	17.000
Zinc	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	13.000	90.000
Zinc (F)	1 5 6 7 8 9 10 11 12 13	13	1000.000	1000.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	600000.000	675000.000
Chloride	2 3 4	2 3 4	190000.000	240000.000
Fluoride	2 3 4	3	982.000	982.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	72.500	270.000
Sulfate	2 3 4	2 3 4	51800.000	57000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	8400.000	9000000.000
VOLATILE ORGANICS				
Toluene	1 2 3 4 5 6 7 8 9 10 11 12 13	9 10	0.640	2.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	11 12 13	63.000	110.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	1 3	360.000	456.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW02

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum (F)	1	1	37018.254	37018.254
Antimony (F)	1	1	143.137	143.137
Arsenic (F)	1	1	22.279	22.279
Barium (F)	1	1	512.000	512.000
Beryllium (F)	1	1	1.641	1.641
Boron (F)	1	1	421.687	421.687
Cadmium (F)	1	1	9.086	9.086
Calcium (F)	1234	1234	53000.000	99000.000
Chromium (F)	1	1	545.545	545.545
Cobalt (F)	1	1	50.754	50.754
Copper (F)	1	1	115.866	115.866
Iron (F)	1234	124	592.000	76931.336
Lead (F)	1	1	346.711	346.711
Magnesium (F)	1234	1234	120000.000	240000.000
Manganese (F)	1	1	1432.866	1432.866
Nickel (F)	1	1	588.000	588.000
Potassium (F)	1234	1	14285.715	14285.715
Sodium (F)	1234	1234	54000.000	89171.977
Vanadium (F)	1	1	166.667	166.667
Zinc (F)	1	1	162.023	162.023
MISCELLANEOUS PARAMETERS				
Bicarbonate	234	234	737000.000	1220000.000
Chloride	234	234	84000.000	150000.000
Fluoride	234	34	1510.000	1780.000
Nitrate, Nitrate-non specific	234	24	14.900	58.200
VOLATILE ORGANICS				
1,1-Dichloroethane	1234	234	6.800	20.000
1,2,3,5-Tetramethylbenzene	2	2	200.000	200.000
1,2-Dichloroethane	1234	134	49.699	170.000
1,2-Dichloroethenes (cis & trans)	1234	1	41.242	41.242
1,2-Dichloropropane	1234	4	12.000	12.000
1,3-Dimethylbenzene	1	1	GT 750.000	GT 750.000
1-Ethyl-2-methylbenzene	234	234	40.000	600.000
Acetone	1234	34	19.000	33.000
Benzene	1234	1234	300.000	1000.000
Chlorobenzene	1234	3	2.300	2.300
Ethylbenzene	1234	1234	400.000	900.000
Tetrachloroethene	1234	234	3.000	14.000
Toluene	1234	1234	750.000	10000.000
Trichloroethene	1234	34	2.400	4.800
Vinyl chloride (Chloroethene)	1234	124	24.000	95.808
Xylenes (Total)	1234	1234	1500.000	5000.000
SEMIVOLATILE ORGANICS				
2-Methylnaphthalene	1	1	173.000	173.000
Naphthalene	1	1	134.000	134.000
TOTAL PETROLEUM HYDROCARBONS				
Total Recoverable Petroleum Hydrocarbons	1234	1234	52000.000	1060000.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (3 of 40)

Well 937GW03

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	120.000	5700.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	2500.000	2500.000
Arsenic	5 6 7 8 9 10 11 12 13	8 10 11 13	8.100	15.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5	3.347	7.700
Barium	5 6 7 8 9 10 11 12 13	6 7 8 10 11 13	13.000	35.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 11	6.000	13.000
Boron (F)	1	1	664.659	664.659
Cadmium	5 6 7 8 9 10 11 12 13	8 11	0.510	0.680
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	12400.000	49900.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	14100.000	67200.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	9.700	53.000
Chromium (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	2.600	41.000
Cobalt	5 6 7 8 9 10 11 12 13	10 11	12.000	12.000
Copper	5 6 7 8 9 10 11 12 13	8 10 11 12 13	1.600	6.900
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	590.000	26400.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 4 5 6 7 8 9 10 11 12 13	429.000	7600.000
Lead	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	5.800	110.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	5	19.000	19.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	70100.000	123000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	74000.000	161000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	130.000	890.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	110.000	1100.000
Mercury	7 8 9 10 11 12 13	8 13	0.110	0.270
Nickel	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	6.300	57.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5	37.000	37.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5500.000	15200.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	6400.000	17200.000
Silver	5 6 7 8 9 10 11 12 13	11	1.700	1.700
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	66000.000	91100.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	46709.129	100000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 7 8 10 11	14.000	32.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	6	6.000	6.000
Zinc	6 7 8 9 10 11 12 13	6 8 11 13	20.000	33.000
Zinc (F)	1 6 7 8 9 10 11 12 13	6 7 10	9.000	45.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	512000.000	523000.000
Chloride	2 3 4	2 3 4	160000.000	160000.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	123.000	129.000
Sulfate	2 3 4	3 4	32100.000	34000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5200.000	1160000.000
VOLATILE ORGANICS				
1,1,3-Trimethylcyclohexane	5	5	5.100	5.100
1,2,3-Trimethylbenzene	5	5	140.000	140.000
1,2,4-Trimethylbenzene	5 7 8	5 7 8	7.800	240.000
1,2,4-Trimethylcyclohexane	5	5	20.000	20.000
1,2-Dichloroethane	1 2 3 4 5 6 7 8 9 10 11 12 13	6	1.000	1.000
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	1 2 3 4 9 10 11 12 13	35.000	750.000
1,3,5-Trimethylbenzene	7 8	8	45.000	45.000
1-Ethyl-2-methylbenzene	5	5	91.000	91.000
1-Ethyl-4-methylbenzene	5	5	40.000	40.000
1-Phenylpropane	5	5	3.300	3.300
2-Methylbutane	5	5	1.200	1.200
3-Methylhexane	5	5	9.800	9.800
Benzene	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 10 11	2.400	72.000
Chlorobenzene	1 2 3 4 5 6 7 8 9 10 11 12 13	1 3 5 10 11	3.100	47.000
Ethylbenzene	1 2 3 4 5 6 7 8 9 10 11 12 13	3 4 5 6 10 11	3.100	64.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (4 of 40)

Well 937GW03

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
VOLATILE ORGANICS				
Indan	5	5	41.000	41.000
Isopropylbenzene	5 7 8	5	180.000	180.000
Methylcyclohexane	5	5	8.300	8.300
Methylcyclopentane	5	5	0.210	0.210
Methylene chloride (Dichloromethane)	1 2 3 4 5 6 7 8 9 10 11 12 13	5 6	1.100	63.000
Octahydro-2-methylpentalene	5	5	31.000	31.000
Tetrachloroethene	1 2 3 4 5 6 7 8 9 10 11 12 13	5	4.500	4.500
Toluene	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 4 6 10 11	2.500	42.000
Trichloroethene	1 2 3 4 5 6 7 8 9 10 11 12 13	6 8	19.000	45.000
Vinyl chloride (Chloroethene)	1 2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 8 10 12	10.000	53.000
Xylene (o)	7 8 9 10 11 12 13	7 8 10 11	7.000	120.000
Xylenes (Total)	1 2 3 4 5 6	1 2 3 4 5 6	16.000	100.000
Xylenes (m/p)	7 8 9 10 11 12 13	7 8 10 11	5.600	170.000
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	190.000	540.000
cis-1-Ethyl-2-methylcyclohexane	5	5	72.000	72.000
trans-1,2-Dichloroethene	5 6 7 8	5 6 7 8	220.000	600.000
trans-1,3-Dimethylcyclohexane	5	5	6.200	6.200
SEMIVOLATILE ORGANICS				
1,2-Dichlorobenzene	1 2 3 4 7 8	1 2	3.210	23.000
2-Methylnaphthalene	1	1	27.900	27.900
Naphthalene	1 7 8	1	9.040	9.040
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4400.000	150000.000
TPH-gas fraction	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	640.000	4600.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	1 3 4	55000.000	204000.000

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Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/9
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Well 937GW04

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	220.000	2900.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	170.000	170.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 9	7.200	23.000
Arsenic	5 6 7 8 9 10 11 12 13	5 7	9.300	14.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5	3.326	13.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	20.000	110.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	9.000	200.000
Boron (F)	1	1	385.542	385.542
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	8	0.500	0.500
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	52000.000	229000.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	47000.000	337000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	5.600	58.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 10 11 12 13	1.100	12.000
Copper	5 6 7 8 9 10 11 12 13	7 9 10 11 13	1.600	5.200
Copper (F)	1 5 6 7 8 9 10 11 12 13	9 11 12 13	2.200	3.400
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5200.000	21400.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	540.000	18700.000
Lead	5 6 7 8 9 10 11 12 13	7 11 12 13	1.300	10.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	6.132	6.132
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	62000.000	253000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	58000.000	316000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	280.000	1600.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	220.000	2100.000
Mercury (F)	1 6 7 8 9 10 11 12 13	6	0.300	0.300
Nickel	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	8.400	77.000
Nickel (F)	1 6 7 8 9 10 11 12 13	6 8 9 10 11 12 13	5.000	13.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	10000.000	36400.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	9200.000	55500.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	68000.000	1130000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	68000.000	2000000.000
Vanadium	5 6 7 8 9 10 11 12 13	7	20.000	20.000
Zinc	6 7 8 9 10 11 12 13	6 7	14.000	73.000
Zinc (F)	1 6 7 8 9 10 11 12 13	1 6 10 13	8.000	83.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5500.000	4580000.000
VOLATILE ORGANICS				
1,1-Dichloroethane	1 5 6 7 8 9 10 11 12 13	8 11 13	1.100	1.400
1,2-Dichloroethenes (cis & trans)	1 9 10 11 12 13	11 12 13	0.700	4.500
Acetone	1 5 6 7 8 9 10 11 12 13	5	12.000	12.000
Vinyl chloride (Chloroethene)	1 5 6 7 8 9 10 11 12 13	11	0.650	0.650
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	0.500	2.700
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	11 13	73.000	130.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (6 of 40)

Well 937GW05

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 9 10 11 12 13	270.000	4000.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	170.000	170.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	1 5 10	8.800	86.961
Arsenic	5 6 7 8 9 10 11 12 13	5 7 9 12 13	5.400	8.300
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5	10.000	10.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	18.000	370.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12	11.000	83.500
Cadmium	5 6 7 8 9 10 11 12 13	7 9 13	0.710	2.200
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	7 9	0.560	0.990
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	44000.000	293000.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	41000.000	244444.438
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	5.000	62.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 11 12 13	1.900	13.000
Cobalt	5 6 7 8 9 10 11 12 13	11 12 13	10.000	16.000
Copper	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.800	6.900
Copper (F)	1 5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.400	2.900
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1800.000	13700.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12	60.000	5987.125
Lead	5 6 7 8 9 10 11 12 13	11 12 13	4.700	6.100
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	50300.000	611000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	45900.000	304140.125
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	160.000	1500.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12	110.000	1533.066
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13.000	90.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	7.900	78.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	7700.000	178000.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	8300.000	47301.590
Selenium	5 6 7 8 9 10 11 12 13	11	28.000	28.000
Selenium (F)	1 5 6 7 8 9 10 11 12 13	11	23.000	23.000
Silver	5 6 7 8 9 10 11 12 13	11	2.300	2.300
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	22300.000	4820000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	29400.000	1480891.750
Vanadium	5 6 7 8 9 10 11 12 13	6 9 11 12 13	6.000	22.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	12	10.000	10.000
Zinc	6 7 8 9 10 11 12 13	9 13	20.000	32.000
Zinc (F)	1 6 7 8 9 10 11 12 13	13	27.000	27.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 12 13	7600.000	5890000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 9 10 11 12 13	9 10 11 12	1.000	1.600
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	1.200	2.200
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	6 8 11 12 13	62.000	230.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/
		Event 13	01/22/95 to 02/15/95

Well 937GW06

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 12	110.000	1700.000
Aluminum (F)	1 7 8 9 10 11 12 13	13	100.000	100.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	8 9 10	5.200	10.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6 7 8	5.000	8.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5 13	5.200	11.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12	41.000	150.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	12.000	250.000
Boron (F)	1	1	567.269	567.269
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	40000.000	303000.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	42600.000	300000.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5.700	35.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 12 13	1.400	19.000
Copper	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.000	7.300
Copper (F)	1 5 6 7 8 9 10 11 12 13	7 8 9 10 12	1.600	9.200
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	2000.000	9200.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 5 6 7 8 9 10 11 12 13	420.000	7900.000
Lead	5 6 7 8 9 10 11 12 13	11 13	1.500	3.100
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	43800.000	359000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	47800.000	625000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	85.000	810.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	84.000	890.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	27.000	89.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	16.000	61.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	16800.000	75400.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 3 5 6 7 8 9 10 11 12 13	18000.000	197000.000
Silver	5 6 7 8 9 10 11 12 13	5 9	0.740	19.000
Silver (F)	1 5 6 7 8 9 10 11 12 13	11	2.200	2.200
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	384000.000	2500000.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	360000.000	5660000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 8	10.000	12.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	6	7.000	7.000
Zinc	6 7 8 9 10 11 12 13	6 7 10	17.000	33.000
Zinc (F)	1 6 7 8 9 10 11 12 13	6 10 13	17.000	31.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	489000.000	594000.000
Chloride	2 3 4	2 3 4	2400000.000	6000000.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	220.000	3000.000
Sulfate	2 3 4	2 3 4	460000.000	800000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	15000.000	15900000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	10 11 12 13	0.760	7.200
Vinyl chloride (Chloroethene)	1 2 3 4 5 6 7 8 9 10 11 12 13	13	5.000	5.000
cis-1,2-Dichloroethene	5 6 7 8	5 7 8	0.580	0.680
trans-1,2-Dichloroethene	5 6 7 8	6	0.500	0.500
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	6 11	80.000	310.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW07

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	7 8 9 10 11 12 13	7 8 9 10 11 12 13	1000.000	7400.000
Antimony (F)	1 7 8 9 10 11 12 13	1	91.569	91.569
Arsenic (F)	1 7 8 9 10 11 12 13	1	3.737	3.737
Barium	7 8 9 10 11 12 13	7 8 9 10 11 12 13	19.000	100.000
Barium (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 11 12	36.000	97.000
Boron (F)	1	1	661.647	661.647
Cadmium	7 8 9 10 11 12 13	7 9 10 11 12 13	1.200	70.000
Cadmium (F)	1 7 8 9 10 11 12 13	7 8 9 10 11 12	0.960	2.300
Calcium	7 8 9 10 11 12 13	7 8 9 10 11 12 13	38400.000	280000.000
Calcium (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 11 12 13	41400.000	420202.000
Chromium	7 8 9 10 11 12 13	7 8 9 10 11 12 13	26.000	320.000
Chromium (F)	1 7 8 9 10 11 12 13	7 8 9 11 12 13	1.100	12.000
Cobalt	7 8 9 10 11 12 13	8 9 11 13	12.000	35.000
Copper	7 8 9 10 11 12 13	7 8 9 10 11 12 13	6.300	43.000
Copper (F)	1 7 8 9 10 11 12 13	7 8 9 10 11 12 13	2.900	8.000
Iron	7 8 9 10 11 12 13	7 8 9 10 11 12 13	3000.000	27800.000
Iron (F)	1 7 8 9 10 11 12 13	1	86.695	86.695
Lead	7 8 9 10 11 12 13	7 8 9 10 11 12 13	36.000	680.000
Lead (F)	1 7 8 9 10 11 12 13	1	5.864	5.864
Magnesium	7 8 9 10 11 12 13	7 8 9 10 11 12 13	51800.000	482000.000
Magnesium (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 11 12 13	45300.000	528000.000
Manganese	7 8 9 10 11 12 13	7 8 9 10 11 12 13	190.000	490.000
Manganese (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 13	11.000	349.699
Nickel	7 8 9 10 11 12 13	7 8 9 10 11 12 13	48.000	390.000
Nickel (F)	1 7 8 9 10 11 12 13	8 9 10 12 13	6.500	15.000
Potassium	7 8 9 10 11 12 13	7 8 9 10 11 12 13	6500.000	119000.000
Potassium (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 11 12 13	6200.000	130000.000
Silver	7 8 9 10 11 12 13	7 8 9 10	0.540	1.100
Silver (F)	1 7 8 9 10 11 12 13	8	0.760	0.760
Sodium	7 8 9 10 11 12 13	7 8 9 10 11 12 13	72300.000	3860000.000
Sodium (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 11 12 13	79400.000	3870000.000
Vanadium	7 8 9 10 11 12 13	9 11 13	11.000	51.000
Zinc	7 8 9 10 11 12 13	7 8 9 10 11 12 13	350.000	3500.000
Zinc (F)	1 7 8 9 10 11 12 13	1 7 8 9 10 11 12	130.000	367.389
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	7 8 9 10 11 12 13	7 8 9 10 11 12 13	442000.000	15500000.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	7 8 9 10 11 12 13	9 11 13	88.000	130.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (9 of 40)

Well 937GW08

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	6 7 8 9 10 11 12 13	6 7 8 9 10 11	100.000	410.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	160.000	160.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 8 9 10	5.100	15.000
Arsenic	5 6 7 8 9 10 11 12 13	8	5.900	5.900
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	12.000	180.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	33.000	170.000
Beryllium	5 6 7 8 9 10 11 12 13	12	10.000	10.000
Boron (F)	1	1	1726.908	1726.908
Cadmium	5 6 7 8 9 10 11 12 13	9	0.740	0.740
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	106000.000	395000.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	132000.000	515151.500
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	5.000	18.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 9 10 11 12 13	1.900	8.000
Cobalt	5 6 7 8 9 10 11 12 13	11	11.000	11.000
Copper	5 6 7 8 9 10 11 12 13	8 9 10 11 12 13	1.800	6.300
Copper (F)	1 5 6 7 8 9 10 11 12 13	7 8 9 10 12 13	2.100	11.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1100.000	5300.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 8 9 13	95.923	1700.000
Lead	5 6 7 8 9 10 11 12 13	11 12 13	1.900	3.600
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	6.678	6.678
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	117000.000	1020000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	259000.000	1040000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11	12.000	55.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 11 13	14.000	42.285
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	8.000	43.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5.000	31.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	30100.000	328000.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	84300.000	970000.000
Selenium	5 6 7 8 9 10 11 12 13	11	76.000	76.000
Selenium (F)	1 5 6 7 8 9 10 11 12 13	1 11	14.894	94.000
Silver	5 6 7 8 9 10 11 12 13	7 8 9 11	1.100	7.900
Silver (F)	1 5 6 7 8 9 10 11 12 13	8 11	0.540	1.900
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	325000.000	54000000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	1670000.000	27000000.000
Vanadium	5 6 7 8 9 10 11 12 13	6	8.000	8.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	6	6.000	6.000
Zinc	6 7 8 9 10 11 12 13	6	17.000	17.000
Zinc (F)	1 5 6 7 8 9 10 11 12 13	6	13.000	13.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	730000.000	23700000.000
VOLATILE ORGANICS				
Trichloroethene	1 5 6 7 8 9 10 11 12 13	6	0.500	0.500
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	6 11 13	90.000	130.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW10

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	290.000	2200.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	240.000	240.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5	11.000	11.000
Arsenic	5 6 7 8 9 10 11 12 13	5 9	7.400	19.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5 9 10	5.600	13.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	49.000	190.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	44.000	170.000
Boron (F)	1	1	2761.044	2761.044
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	99500.000	323000.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	109000.000	390000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	7.200	41.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 9 11 12 13	1.300	8.300
Cobalt	5 6 7 8 9 10 11 12 13	11 13	11.000	19.000
Copper	5 6 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	13.000	75.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	7.400	25.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1000.000	5900.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 5 6	68.000	1000.000
Lead	5 6 7 8 9 10 11 12 13	5 6 9 10 11 12 13	4.000	32.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	6.410	6.410
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	285000.000	813000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	318000.000	GT 1000000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	27.000	270.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 11 12	10.000	327.655
Mercury	7 8 9 10 11 12 13	12	0.200	0.200
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	16.000	120.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	16.000	95.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	109000.000	332000.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 3 5 6 7 8 9 10 11 12 13	130000.000	313000.000
Selenium (F)	1 5 6 7 8 9 10 11 12 13	1	17.660	17.660
Silver	5 6 7 8 9 10 11 12 13	8 9	1.000	1.500
Silver (F)	1 5 6 7 8 9 10 11 12 13	8 9 13	0.650	1.700
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	2720000.000	74000000.000
Sodium (F)	1 2 3 4 5 7 8 9 10 11 12 13	1 2 3 4 5 7 8 9 10 11 12 13GT	2000000.000	11000000.000
Vanadium	5 6 7 8 9 10 11 12 13	9 13	10.000	19.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	6	5.000	5.000
Zinc	6 7 8 9 10 11 12 13	6 13	13.000	32.000
Zinc (F)	1 6 7 8 9 10 11 12 13	6	12.000	12.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	191000.000	264000.000
Chloride	2 3 4	2 3 4	14000000.000	19000000.000
Nitrate, Nitrate-non specific	2 3 4	2 4	220.000	300.000
Sulfate	2 3 4	2 3 4	1500000.000	2200000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	790000.000	23100000.000
VOLATILE ORGANICS				
Dodecane	4	4	9.000	9.000
Toluene	1 2 3 4 5 6 7 8 9 10 11 12 13	4	4.600	4.600
Tridecane	4	4	10.000	10.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	11 12 13	50.000	71.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	2	270.000	270.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/9
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Well 937GW11

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum (F)	1	1	12373.226	12373.226
Antimony (F)	1	1	75.980	75.980
Arsenic (F)	1	1	31.212	31.212
Barium (F)	1	1	327.000	327.000
Boron (F)	1	1	532.128	532.128
Calcium (F)	1234	1234	48000.000	69000.000
Chromium (F)	1	1	125.743	125.743
Copper (F)	1	1	78.392	78.392
Iron (F)	1234	1234	14000.000	33905.582
Lead (F)	1	1	1705.686	1705.686
Magnesium (F)	1234	1234	110000.000	160000.000
Manganese (F)	1	1	1533.066	1533.066
Nickel (F)	1	1	161.000	161.000
Potassium (F)	1234	1	12804.233	12804.233
Sodium (F)	1234	1234	35000.000	49000.000
Vanadium (F)	1	1	65.462	65.462
Zinc (F)	1	1	47.162	47.162
MISCELLANEOUS PARAMETERS				
Bicarbonate	234	234	573000.000	893000.000
Chloride	234	234	40000.000	110000.000
Fluoride	234	34	919.000	964.000
Nitrate, Nitrate-non specific	234	34	16.200	130.000
VOLATILE ORGANICS				
1,1-Dichloroethane	1234	3	5.400	5.400
1,2,4-Trimethylbenzene	2	2	600.000	600.000
1,3-Dimethylbenzene	1	1	307.770	307.770
3-Propyltoluene	2	2	100.000	100.000
Acetone	1234	23	31.000	40.000
Benzene	1234	1234	77.519	140.000
Chlorobenzene	1234	1234	9.000	15.000
Ethylbenzene	1234	234	6.000	16.000
Toluene	1234	234	7.000	26.000
Xylenes (Total)	1234	1234	301.980	1000.000
SEMIVOLATILE ORGANICS				
2-Methylnaphthalene	1	1	45.200	45.200
Naphthalene	1	1	GT 100.000	GT 100.000
TOTAL PETROLEUM HYDROCARBONS				
Total Recoverable Petroleum Hydrocarbons	1234	1234	62500.000	340000.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW12

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	820.000	10000.000
Aluminum (F)	5 6 7 8 9 10 11 12 13	6	1200.000	1200.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6 7 8 10 11 12	5.200	18.000
Arsenic (F)	5 6 7 8 9 10 11 12 13	5 9	6.400	7.500
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	15.000	45.000
Barium (F)	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	10.000	36.000
Cadmium	5 6 7 8 9 10 11 12 13	11	0.700	0.700
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	28000.000	119000.000
Calcium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	27000.000	122000.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14.000	110.000
Chromium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	2.000	21.000
Cobalt	5 6 7 8 9 10 11 12 13	10 12	13.000	14.000
Copper	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	17.000	440.000
Copper (F)	5 6 7 8 9 10 11 12 13	6	86.000	86.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4900.000	27000.000
Iron (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	340.000	8800.000
Lead	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6.700	36.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	69500.000	153000.000
Magnesium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	70000.000	152000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	250.000	800.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	200.000	810.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 11 12 13	17.000	100.000
Nickel (F)	5 6 7 8 9 10 11 12 13	5 6 11 13	5.600	24.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	10900.000	20900.000
Potassium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	9400.000	20700.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	93600.000	571000.000
Sodium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	101000.000	597000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	14.000	34.000
Vanadium (F)	5 6 7 8 9 10 11 12 13	6	21.000	21.000
Zinc	5 6 7 8 9 10 11 12 13	5 6 7 8 10 11 12 13	31.000	110.000
Zinc (F)	5 6 7 8 9 10 11 12 13	6 13	33.000	76.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14000.000	2480000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	9 10 11 12 13	9 10 11 12	1.100	3.100
Toluene	5 6 7 8 9 10 11 12 13	6	0.500	0.500
Vinyl chloride (Chloroethene)	5 6 7 8 9 10 11 12 13	5 7 11 12	0.560	1.200
Xylenes (Total)	5 6	6	1.500	1.500
cis-1,2-Dichloroethene	5 6 7 8	5 7	0.500	0.600
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	9 10 11 12 13	62.000	140.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (13 of 40)

Well 937GW15

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	6 7 8 9 10 11 12 13	6 7 8 9 11 12 13	180.000	720.000
Antimony	5 6 7 8 9 10 11 12 13	5 10	5.500	15.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	10	6.700	6.700
Arsenic	5 6 7 8 9 10 11 12 13	5	5.000	5.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5	7.800	7.800
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	10.000	21.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 11 12	10.000	12.700
Boron (F)	1	1	404.618	404.618
Cadmium	5 6 7 8 9 10 11 12 13	9 11 13	0.530	1.400
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	11 13	0.670	0.680
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	54000.000	79200.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	54000.000	82800.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	2.000	9.500
Chromium (F)	1 6 7 8 9 10 11 12 13	7 10 11 12 13	1.300	10.000
Copper	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.200	3.900
Copper (F)	1 5 6 7 8 9 10 11 12 13	5 7 8 9 12 13	1.000	11.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 11 12 13	190.000	2200.000
Lead	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	3.500	31.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	5.596	5.596
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	45400.000	60400.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	48500.000	62200.000
Manganese	5 6 7 8 9 10 11 12 13	5 7 8 9 11 12 13	19.000	40.000
Mercury (F)	1 6 7 8 9 10 11 12 13	6	0.300	0.300
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4.000	17.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	5.700	12.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 8 11	4100.000	9800.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 8	4800.000	12000.000
Silver	5 6 7 8 9 10 11 12 13	7	0.530	0.530
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	18900.000	71000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	20100.000	74522.289
Zinc	6 7 8 9 10 11 12 13	6 7 9 10 13	6.000	35.000
Zinc (F)	1 6 7 8 9 10 11 12 13	13	63.000	63.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 12 13	3900.000	631000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 9 10 11 12 13	12	4.200	4.200
Toluene	1 5 6 7 8 9 10 11 12 13	11	0.740	0.740
Vinyl chloride (Chloroethene)	1 5 6 7 8 9 10 11 12 13	5 12	0.610	0.920
cis-1,2-Dichloroethene	5 6 7 8	5	0.510	0.510
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	8 11 13	52.000	350.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (14 of 40)

Well 937GW16

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	200.000	5000.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 9 10	7.000	11.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6 9 10 13	5.000	12.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5	7.000	7.000
Barium	5 6 7 8 9 10 11 12 13	6 9 10 11 12 13	9.000	26.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6	4.610	8.000
Cadmium	5 6 7 8 9 10 11 12 13	8 9 11 12 13	0.550	1.000
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	11	0.530	0.530
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	17500.000	41300.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	18500.000	400000.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4.000	60.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	2.100	11.000
Copper	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	2.200	7.600
Copper (F)	1 5 6 7 8 9 10 11 12 13	13	1.300	1.300
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	3800.000	23400.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	204.936	5800.000
Lead	5 6 7 8 9 10 11 12 13	5 8 9 10 11 12 13	2.800	11.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	11	1.400	1.400
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	17500.000	33700.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	17000.000	57324.840
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	53.000	110.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	24.000	187.375
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	9.000	77.000
Nickel (F)	1 6 7 8 9 10 11 12 13	6	4.000	4.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5900.000	10000.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	6200.000	10042.328
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13900.000	29000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	2900.000	83014.859
Vanadium	5 6 7 8 9 10 11 12 13	6 8 9 10 11 12 13	5.000	23.000
Zinc	5 6 7 8 9 10 11 12 13	5 6 8 9 10 11 13	21.000	33.000
Zinc (F)	1 5 6 7 8 9 10 11 12 13	6 13	25.000	34.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	3200.000	349000.000
VOLATILE ORGANICS				
Carbon disulfide	1 5 6 9 10 11 12 13	6	5.000	5.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	9	54.000	54.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Well 937GW17

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 9 10 11 12 13	120.000	840.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	10	5.800	5.800
Arsenic	5 6 7 8 9 10 11 12 13	11 12	5.600	5.700
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	140.000	310.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	58.700	300.000
Boron (F)	1	1	613.454	613.454
Cadmium	5 6 7 8 9 10 11 12 13	9 11	0.880	1.600
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	9	0.540	0.540
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	44500.000	168000.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	49300.000	181000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	3.200	22.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 11 12 13	1.600	17.000
Cobalt	5 6 7 8 9 10 11 12 13	9	12.000	12.000
Copper	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.000	4.600
Copper (F)	1 5 6 7 8 9 10 11 12 13	10 12	1.100	1.200
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	9900.000	28000.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	3900.000	25100.000
Lead	5 6 7 8 9 10 11 12 13	8 10 11 12 13	3.500	5.100
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	78300.000	398000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	82900.000	416000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	520.000	2100.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	460.000	2000.000
Nickel	6 7 8 9 10 11 12 13	9 10 11 12 13	6.300	13.000
Nickel (F)	1 6 7 8 9 10 11 12 13	9	5.400	5.400
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4400.000	78500.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	20105.820	79100.000
Selenium	5 6 7 8 9 10 11 12 13	11	26.000	26.000
Selenium (F)	1 5 6 7 8 9 10 11 12 13	11	25.000	25.000
Silver	5 6 7 8 9 10 11 12 13	7 9 11	0.500	2.900
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	949000.000	36000000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	777070.063	23000000.000
Thallium	5 6 7 8 9 10 11 12 13	10	1.000	1.000
Zinc	5 6 7 8 9 10 11 12 13	6 13	10.000	98.000
Zinc (F)	1 5 6 7 8 9 10 11 12 13	5 6 13	7.000	33.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	520000.000	7220000.000
VOLATILE ORGANICS				
Toluene	1 5 6 7 8 9 10 11 12 13	10 11	1.600	2.800
Trimethylsilanol	5	5	1.500	1.500
SEMIVOLATILE ORGANICS				
Bis(2-ethylhexyl) phthalate	1	1	79.200	79.200
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 8 11 12 13	51.000	230.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW18

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	6 7 8 9 10 11 12 13	6 8 10 11 12 13	110.000	710.000
Arsenic	5 6 7 8 9 10 11 12 13	8 10 11 12 13	12.000	58.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 10 11 12 13	3.532	19.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	30.000	180.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	32.900	110.000
Boron (F)	1	1	603.414	603.414
Cadmium	5 6 7 8 9 10 11 12 13	11 13	0.550	0.760
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	68900.000	78800.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	60606.059	82300.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.900	13.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.700	23.000
Cobalt	5 6 7 8 9 10 11 12 13	12	10.000	10.000
Copper	5 6 7 8 9 10 11 12 13	8 10 11 13	1.700	4.900
Copper (F)	1 5 6 7 8 9 10 11 12 13	12 13	1.100	1.600
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6200.000	74300.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	18000.000	48000.000
Lead	5 6 7 8 9 10 11 12 13	11 12 13	1.900	4.400
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	109000.000	125000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	99044.586	130000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	920.000	1400.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	870.000	1500.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 8 10 11 12 13	5.000	16.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 12 13	5.100	8.900
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	10500.000	13300.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	10687.831	13000.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	43200.000	88300.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	49100.000	96400.000
Zinc	6 7 8 9 10 11 12 13	8 13	20.000	28.000
Zinc (F)	1 6 7 8 9 10 11 12 13	10 13	33.000	220.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6300.000	1100000.000
VOLATILE ORGANICS				
Acetone	1 5 6 7 8 9 10 11 12 13	13	17.000	17.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	8 9 11 12 13	90.000	150.000
Total Recoverable Petroleum Hydrocarbons	1	1	220.000	220.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Well 937GW19

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1100.000	20100.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	9 10	6.200	7.700
Arsenic	5 6 7 8 9 10 11 12 13	5 8 11	5.500	18.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 7	4.559	5.400
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	55.000	240.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	33.000	150.000
Cadmium	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	0.500	1.900
Calcium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	10800.000	41100.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 6 7 8 9 10 11 12 13	9800.000	49000.000
Chromium	5 6 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	16.000	250.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.000	15.000
Cobalt	5 6 7 8 9 10 11 12 13	8 9 10 11 13	13.000	39.000
Copper	5 6 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	5.500	42.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	12 13	1.400	2.200
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	3700.000	50800.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	120.172	3500.000
Lead	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	15.000	140.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	23000.000	89600.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	18900.000	89000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	530.000	2000.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	370.000	1800.000
Mercury (F)	1 6 7 8 9 10 11 12 13	6	0.300	0.300
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	45.000	430.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6.200	16.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 8 10 11 12	3900.000	6600.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 12	3700.000	11000.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14200.000	78300.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	14000.000	92200.000
Vanadium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	10.000	94.000
Zinc	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	30.000	250.000
Zinc (F)	1 6 7 8 9 10 11 12 13	7 10 11	21.000	51.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	200000.000	540000.000
Chloride	2 3 4	2 3 4	10700.000	68000.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	113.000	320.000
Sulfate	2 3 4	4	10800.000	10800.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1600.000	630000.000
VOLATILE ORGANICS				
Chloroform	1 2 3 4 5 6 7 8 9 10 11 12 13	13	1.300	1.300
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 9 11 12 13	53.000	110.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	2 3	495.000	530.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/95
		Event 13	01/22/95 to 02/15/95

Well 937GW20

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	6 8 10 11 12 13	620.000	1400.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	860.000	860.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	10	5.700	5.700
Arsenic	5 6 7 8 9 10 11 12 13	5	13.000	13.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5 7 13	2.495	11.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	11.000	38.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	12.000	34.000
Boron (F)	1	1	308.233	308.233
Cadmium	5 6 7 8 9 10 11 12 13	7	0.720	0.720
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	25500.000	53300.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	24800.000	55400.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	4.100	29.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.100	24.000
Cobalt	5 6 7 8 9 10 11 12 13	13	12.000	12.000
Copper	5 6 7 8 9 10 11 12 13	8 10 11 12 13	1.300	5.300
Copper (F)	1 5 6 7 8 9 10 11 12 13	13	2.100	2.100
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	500.000	3900.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	140.000	2800.000
Lead	5 6 7 8 9 10 11 12 13	6 10 11 12 13	1.600	18.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	8.818	8.818
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	68600.000	123000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	71400.000	120000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	100.000	330.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	97.000	366.733
Mercury	7 8 9 10 11 12 13	12	0.220	0.220
Mercury (F)	1 6 7 8 9 10 11 12 13	6	0.300	0.300
Nickel	6 7 8 9 10 11 12 13	8 9 10 11 12 13	5.800	16.000
Nickel (F)	1 6 7 8 9 10 11 12 13	6 9 10	5.300	19.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12	5300.000	14000.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12	5400.000	13000.000
Silver	5 6 7 8 9 10 11 12 13	5	150.000	150.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	99300.000	383000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	115000.000	356000.000
Zinc	5 6 7 8 9 10 11 12 13	6	6.000	6.000
Zinc (F)	1 5 6 7 8 9 10 11 12 13	13	51.000	51.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	10000.000	1360000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 9 10 11 12 13	9 10 11 13	0.710	3.700
Vinyl chloride (Chloroethene)	1 5 6 7 8 9 10 11 12 13	5 7 8	0.780	1.000
cis-1,2-Dichloroethene	5 6 7 8	5 7 8	2.600	9.700
trans-1,2-Dichloroethene	5 6 7 8	5	0.640	0.640
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 9 11	50.000	94.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW21

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	460.000	12800.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	1	85.000	85.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5.000	87.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	12.000	63.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	210.000	820.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	58.000	330.000
Boron (F)	1	1	693.775	693.775
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	40000.000	67400.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	41000.000	115000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.300	120.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.000	40.000
Cobalt	5 6 7 8 9 10 11 12 13	8 9 11 12	13.000	25.000
Copper	5 6 7 8 9 10 11 12 13	5 8 9 10 11 12 13	1.100	13.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	9 10 13	1.800	4.700
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	12000.000	88800.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	250.000	20000.000
Lead	5 6 7 8 9 10 11 12 13	6 8 11 12 13	5.000	20.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	6.678	6.678
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	94000.000	145000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	97000.000	148000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	150.000	420.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	140.000	280.000
Mercury	7 8 9 10 11 12 13	11 12	0.250	0.380
Mercury (F)	1 6 7 8 9 10 11 12 13	6	0.300	0.300
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	10.000	160.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 8 9 13	5.000	11.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	7300.000	9600.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	7300.000	32800.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	120000.000	158000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	127000.000	868000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12	8.000	73.000
Vanadium (F)	1 5 6 7 8 9 10 11 12 13	6	5.000	5.000
Zinc	6 7 8 9 10 11 12 13	6 8 9 10 11 12	6.000	87.000
Zinc (F)	1 6 7 8 9 10 11 12 13	13	450.000	450.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	8800.000	1130000.000
VOLATILE ORGANICS				
Benzene	1 5 6 7 8 9 10 11 12 13	5	0.570	0.570
Octamethylcyclotetrasiloxane	5	5	0.380	0.380
Vinyl chloride (Chloroethene)	1 5 6 7 8 9 10 11 12 13	5 8	2.800	4.100
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	8 11 12 13	58.000	170.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (20 of 40)

Well 937GW22

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	590.000	25500.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5 7	140.000	830.000
Arsenic	5 6 7 8 9 10 11 12 13	5 9 10 12 13	7.300	23.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 5	3.121	8.100
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	110.000	470.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	74.600	210.000
Boron (F)	1	1	537.149	537.149
Cadmium	5 6 7 8 9 10 11 12 13	9 10 11 12	0.540	1.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	23300.000	60600.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	15000.000	58400.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5.000	480.000
Chromium (F)	1 6 7 8 9 10 11 12 13	7 8 11 12 13	1.100	17.000
Cobalt	5 6 7 8 9 10 11 12 13	8 9 10 11 12 13	19.000	65.000
Cobalt (F)	1 5 6 7 8 9 10 11 12 13	10	11.000	11.000
Copper	5 6 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	2.500	52.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	8 9 10 11	1.100	2.500
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	15100.000	75000.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	1500.000	16600.000
Lead	5 6 7 8 9 10 11 12 13	5 6 8 9 10 11 12 13	6.000	36.000
Lead (F)	1 5 6 7 8 9 10 11 12 13	1	8.551	8.551
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	21500.000	60900.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	13000.000	77000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1100.000	3400.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	1100.000	3000.000
Mercury	7 8 9 10 11 12 13	12	0.330	0.330
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13.000	540.000
Nickel (F)	1 6 7 8 9 10 11 12 13	6 8 9 10 11 13	5.700	12.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 11 12 13	4400.000	14000.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 4 5 6 7 12	4200.000	13544.974
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	19900.000	81500.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	2300.000	127813.164
Vanadium	5 6 7 8 9 10 11 12 13	8 9 10 11 12 13	26.000	110.000
Zinc	6 7 8 9 10 11 12 13	6 8 9 10 11 12 13	10.000	100.000
Zinc (F)	1 6 7 8 9 10 11 12 13	6 13	6.000	61.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	149000.000	576000.000
Chloride	2 3 4	2 3 4	32000.000	150000.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	78.500	240.000
Sulfate	2 3 4	3 4	15500.000	17600.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	2100.000	620000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	12	0.820	0.820
Acetone	1 2 3 4 5 6 7 8 9 10 11 12 13	4 5 9	15.000	91.000
Vinyl chloride (Chloroethene)	1 2 3 4 5 6 7 8 9 10 11 12 13	2 11 12	1.400	6.800
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	84.000	310.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	2 4	481.000	632.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW23

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	6 7 8 9 10 11 12 13	6 8	100.000	130.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	1 9 10	6.200	67.800
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	12.000	59.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 12	11.000	91.300
Boron (F)	1	1	942.000	942.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	35000.000	190000.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	35400.000	410000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	3.200	46.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.700	16.000
Copper	5 6 7 8 9 10 11 12 13	5 7 8 9 11 13	1.900	11.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	10 11 12	1.300	2.100
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	340.000	5000.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12	209.000	1400.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	72700.000	360000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	76500.000	660000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	18.000	120.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	17.000	200.000
Nickel	6 7 8 9 10 11 12 13	6 8 9 11 12 13	5.000	63.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 11 12	3.000	87.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	23000.000	94400.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 3 5 6 7 8 9 10 11 12 13	26000.000	160000.000
Silver	5 6 7 8 9 10 11 12 13	8	0.900	0.900
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	298000.000	2400000.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	380000.000	4100000.000
Zinc	6 7 8 9 10 11 12 13	6 13	9.000	40.000
Zinc (F)	1 6 7 8 9 10 11 12 13	13	39.000	39.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	298000.000	627000.000
Chloride	2 3 4	2 3 4	1800000.000	9100000.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	23.800	56.400
Sulfate	2 3 4	2 3 4	230000.000	950000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14000.000	8900000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	1 4 9 10 11 12 13	0.820	54.000
Benzene	1 2 3 4 5 6 7 8 9 10 11 12 13	4 13	2.500	3.100
Toluene	1 2 3 4 5 6 7 8 9 10 11 12 13	4	3.600	3.600
Vinyl chloride (Chloroethene)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 4 5 6 7 8 9 10 11 12 13	3.200	110.000
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	2.100	3.000
trans-1,2-Dichloroethene	5 6 7 8	6 7 8	0.510	0.790
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 7 8 9 10 11 12 13	8	52.000	52.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	2	860.000	860.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (22 of 40)

Well 937GW24

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6	340.000	2400.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	240.000	240.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 10	7.800	19.000
Arsenic	5 6 7 8 9 10 11 12 13	5	34.000	34.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5 13	5.500	13.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12	57.000	170.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11	46.000	165.000
Boron (F)	1	1	2860.000	2860.000
Cadmium	5 6 7 8 9 10 11 12 13	13	0.620	0.620
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	13	0.690	0.690
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	61300.000	334000.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	72000.000	390000.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1.800	54.000
Chromium (F)	1 5 6 7 8 9 10 11 12 13	5 6 11 13	1.000	17.000
Cobalt	5 6 7 8 9 10 11 12 13	8	14.000	14.000
Copper	5 6 7 8 9 10 11 12 13	7 9 10 11 12 13	1.700	4.700
Copper (F)	1 5 6 7 8 9 10 11 12 13	1 7 8 9 10 11 13	1.000	21.200
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1900.000	67000.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	120.000	3850.000
Lead	5 6 7 8 9 10 11 12 13	6 11 12	1.300	8.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	98000.000	952000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	118000.000	1010000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10	22.000	160.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 11 12	13.000	232.000
Mercury (F)	1 6 7 8 9 10 11 12 13	6	0.900	0.900
Nickel	5 6 7 8 9 10 11 12 13	5 9 11 12 13	11.000	80.000
Nickel (F)	1 6 7 8 9 10 11 12 13	1 7 8 9 10 11 12 13	5.900	56.600
Potassium	5 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	27600.000	364000.00
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	32800.000	332000.00
Silver	5 6 7 8 9 10 11 12 13	8	0.610	0.610
Silver (F)	1 5 6 7 8 9 10 11 12 13	8	0.870	0.870
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	379000.000	92000000.000
Sodium (F)	1 5 7 8 9 10 11 12 13	1 5 7 8 9 10 11 12 13	481000.000	8700000.000
Vanadium	5 6 7 8 9 10 11 12 13	5 6	7.000	63.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1400000.000	25100000.000
VOLATILE ORGANICS				
Trimethylsilanol	5	5	0.640	0.640
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	11	100.000	100.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/2
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/
		Event 13	01/22/95 to 02/15/95

Well 937GW26

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 8 9 10 11 12	110.000	2300.000
Aluminum (F)	1 7 8 9 10 11 12 13	12	240.000	240.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	8 9 10	5.500	11.000
Arsenic	5 6 7 8 9 10 11 12 13	5 8 9 10 13	5.900	20.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5 8 9	9.900	17.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	11.000	31.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12	13.000	41.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	29100.000	95800.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	29000.000	93500.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	2.500	11.000
Chromium (F)	1 6 7 8 9 10 11 12 13	1 8 9 10 11 12 13	2.100	17.100
Cobalt	5 6 7 8 9 10 11 12 13	8	11.000	11.000
Copper	5 6 7 8 9 10 11 12 13	7 8 10 13	1.300	8.900
Copper (F)	1 5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.200	3.300
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	400.000	6600.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 8 9 11 12 13	220.000	2900.000
Lead	5 6 7 8 9 10 11 12 13	6	4.000	4.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	51200.000	166000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	55200.000	165000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	30.000	410.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	15.000	536.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5.900	23.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 6 7 8 11 12 13	5.000	8.800
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12	6400.000	12300.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12	6280.000	13200.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	48200.000	219000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	50200.000	228000.000
Zinc	6 7 8 9 10 11 12 13	6 13	19.000	22.000
Zinc (F)	1 6 7 8 9 10 11 12 13	6	6.000	6.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6700.000	1450000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 9 10 11 12 13	9 13	3.900	6.000
Vinyl chloride (Chloroethene)	1 5 6 7 8 9 10 11 12 13	5	1.300	1.300
cis-1,2-Dichloroethene	5 6 7 8	5	1.100	1.100
SEMIVOLATILE ORGANICS				
4-Methylphenol	1	1	42.100	42.100
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5	61.000	61.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW27

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	6 7 8 9 10 11 12 13	6 8	130.000	450.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 9	5.700	14.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	17.000	25.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	15.000	24.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	45400.000	64600.000
Calcium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	45000.000	66200.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	8.300	16.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	6.800	31.000
Copper	5 6 7 8 9 10 11 12 13	5 13	1.100	11.000
Copper (F)	1 5 6 7 8 9 10 11 12 13	8 12 13	1.300	1.900
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1700.000	7700.000
Iron (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	535.000	4500.000
Lead	5 6 7 8 9 10 11 12 13	6	6.000	6.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	106000.000	120000.000
Magnesium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	94700.000	124000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	400.000	710.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	400.000	690.000
Nickel	5 6 7 8 9 10 11 12 13	6 8 10	4.000	8.600
Nickel (F)	1 5 6 7 8 9 10 11 12 13	10 13	5.500	7.200
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	11000.000	19700.000
Potassium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	11000.000	20400.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	169000.000	231000.000
Sodium (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	160000.000	245000.000
Zinc	6 7 8 9 10 11 12 13	13	34.000	34.000
Zinc (F)	1 6 7 8 9 10 11 12 13	10 13	41.000	55.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	10000.000	1210000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	1 9 10 11 12 13	9 10 11 13	0.510	2.600
Vinyl chloride (Chloroethene)	1 5 6 7 8 9 10 11 12 13	8 12	0.720	1.100
cis-1,2-Dichloroethene	5 6 7 8	5 6 8	0.760	1.300
SEMIVOLATILE ORGANICS				
4-Methylphenol	1	1	37.600	37.600
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	11 12 13	54.000	65.000
Total Recoverable Petroleum Hydrocarbons	1	1	350.000	350.000

Some analytical results have been deleted from this table due to blank contamination.
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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/9
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/9
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW28

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 10 12 13	230.000	1100.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	170.000	170.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5	14.000	14.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6	5.100	7.000
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	5 6	8.200	9.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	11.000	530.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	11.000	43.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	55500.000	88100.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	48000.000	99000.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6.300	22.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	4.400	47.000
Copper	5 6 7 8 9 10 11 12 13	10 13	1.800	3.700
Copper (F)	1 5 6 7 8 9 10 11 12 13	13	2.900	2.900
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1700.000	14700.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 4 5 6 7 8 9 10 11 12 13	117.000	3000.000
Lead	5 6 7 8 9 10 11 12 13	12 13	1.500	1.700
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	120000.000	180000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	114000.000	200000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	760.000	1600.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	646.000	1600.000
Nickel	6 7 8 9 10 11 12 13	6 10 12 13	11.000	23.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 13	16.000	130.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13100.000	16400.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	12200.000	16300.000
Selenium (F)	1 5 6 7 8 9 10 11 12 13	7	5.800	5.800
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	115000.000	142000.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	110000.000	170000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 10 12 13	8.000	16.000
Zinc	6 7 8 9 10 11 12 13	10	23.000	23.000
Zinc (F)	1 6 7 8 9 10 11 12 13	13	28.000	28.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	839000.000	1350000.000
Chloride	2 3 4	2 3 4	120000.000	150000.000
Fluoride	2 3 4	3 4	1370.000	1520.000
Nitrate, Nitrate-non specific	2 3 4	3 4	64.300	500.000
Sulfate	2 3 4	2 3 4	5590.000	24700.000
Total Dissolved Solids	4 5 6 7 8 9 10 11 12 13	4 5 6 7 8 9 10 11 12 13	10000.000	1280000.000
VOLATILE ORGANICS				
1,1-Dimethylcyclohexane	5	5	0.910	0.910
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	1 12	1.200	9.470
Benzene	1 2 3 4 5 6 7 8 9 10 11 12 13	1 5	0.600	2.791
Vinyl chloride (Chloroethene)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 4 5 7 8 9 10 11 12	1.100	76.647
trans-1,2-Dichloroethene	5 6 7 8	5	0.680	0.680
SEMIVOLATILE ORGANICS				
4-Methylphenol	1	1	17.100	17.100
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	11 13	84.000	130.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	1 2 3 4	210.000	783.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Well 937GW29

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 11	140.000	420.000
Aluminum (F)	1 5 8 9 10 11 12 13	9	520.000	520.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 9 10	5.800	11.000
Arsenic	5 6 8 9 10 11 12 13	5 9 10 11	5.800	7.900
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 9 10 11 12 13	3.275	9.900
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	14.000	56.000
Barium (F)	1 5 6 8 9 10 11 12 13	1 6 8 9 10 11 12 13	11.000	47.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4200.000	41000.000
Calcium (F)	1 5 6 8 9 10 11 12 13	1 5 6 8 9 10 11 12 13	4100.000	41000.000
Chromium	6 7 8 9 10 11 12 13	7 9 11 13	1.500	3.200
Chromium (F)	1 5 6 7 8 9 10 11 12 13	5 11 12 13	4.600	63.000
Copper	5 6 7 8 9 10 11 12 13	7 11 13	1.100	9.500
Copper (F)	1 5 6 7 8 9 10 11 12 13	10 12 13	1.400	3.200
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	140.000	820.000
Iron (F)	1 5 6 8 9 10 11 12 13	1 5 6 9 12	35.000	240.000
Lead	5 6 7 8 9 10 11 12 13	11 13	1.400	1.800
Lead (F)	1 5 6 7 8 9 10 11 12 13	11	1.500	1.500
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5000.000	40000.000
Magnesium (F)	1 5 6 8 9 10 11 12 13	1 5 6 8 9 10 11 12 13	4800.000	40100.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	70.000	600.000
Manganese (F)	1 5 6 8 9 10 11 12 13	1 5 6 8 9 10 11 12 13	67.000	380.000
Nickel	5 6 8 9 10 11 12 13	5 6	4.000	17.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5	74.000	74.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13600.000	23000.000
Potassium (F)	1 5 6 8 9 10 11 12 13	1 5 6 8 9 10 11 12 13	14000.000	23000.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	237000.000	510000.000
Sodium (F)	1 5 6 8 9 10 11 12 13	1 5 6 8 9 10 11 12 13	250000.000	520000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 11	5.000	18.000
Vanadium (F)	1 5 6 8 9 10 11 12 13	11 13	10.000	14.000
Zinc	5 6 7 8 9 10 11 12 13	6	7.000	7.000
Zinc (F)	1 5 6 8 9 10 11 12 13	6	6.000	6.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 8 9 10 11 12 13	5 6 8 9 10 11 12 13	6000.000	1800000.000
VOLATILE ORGANICS				
Trimethylsilanol	5	5	0.058	0.058
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 11	86.000	97.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/
		Event 13	01/22/95 to 02/15/95

Well 937GW31

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 10 11 12	110.000	1700.000
Aluminum (F)	1 5 7 8 9 10 11 12 13	5	360.000	360.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	9	7.500	7.500
Arsenic	5 6 7 8 9 10 11 12 13	10	6.700	6.700
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1	3.980	3.980
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	39.000	120.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	51.000	90.800
Boron (F)	1	1	5580.000	5580.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	24600.000	47200.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	23900.000	61000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 12 13	1.000	30.000
Chromium (F)	1 6 7 8 9 10 11 12 13	6 11 12 13	1.000	15.000
Copper	5 6 7 8 9 10 11 12 13	8 10	3.000	5.900
Copper (F)	1 5 6 7 8 9 10 11 12 13	8 9 12	1.300	1.400
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	66.000	5700.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	2 5 6 10	120.000	410.000
Lead	5 6 7 8 9 10 11 12 13	10 11 12	1.100	7.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	61200.000	134000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	58800.000	180000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	180.000	580.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	200.000	370.000
Nickel	5 6 7 8 9 10 11 12 13	10 12	15.000	20.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 9	5.000	6.300
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	25700.000	68300.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 4 5 6 7 8 9 10 11 12 13	34400.000	64000.000
Silver	5 6 7 8 9 10 11 12 13	7 13	2.000	2.500
Silver (F)	1 5 6 7 8 9 10 11 12 13	7	0.530	0.530
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	539000.000	92000000.000
Sodium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	825000.000	16000000.000
Zinc	6 7 8 9 10 11 12 13	6 10	5.000	20.000
Zinc (F)	1 5 6 7 8 9 10 11 12 13	5 6	13.000	330.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	564000.000	622000.000
Chloride	2 3 4	2 3 4	2400000.000	3800000.000
Nitrate, Nitrate-non specific	2 3 4	2 3	21.900	26.300
Sulfate	2 3 4	2 3 4	150000.000	270000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	500000.000	5770000.000
VOLATILE ORGANICS				
1,1-Dichloroethane	1 2 3 4 5 6 7 8 9 10 11 12 13	6	0.500	0.500
1,1-Dichloroethene	1 2 3 4 5 6 7 8 9 10 11 12 13	1	GT 150.000	GT 150.000
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	1 2 3 4 9 10 11 12 13	13.000	1100.000
4-Methyldecane	2	2	100.000	100.000
Benzene	1 2 3 4 5 6 7 8 9 10 11 12 13	1 4 5 13	0.260	3.500
Toluene	1 2 3 4 5 6 7 8 9 10 11 12 13	7	1.800	1.800
Trichloroethene	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 10	2.000	820.000
Vinyl chloride (Chloroethene)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 4 5 6 7 10 11 12 13	2.900	80.000
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	2.800	290.000
trans-1,2-Dichloroethene	5 6 7 8	5 6 7 8	17.000	1800.000
SEMIVOLATILE ORGANICS				
Naphthalene	1 7 8	1	5.230	5.230
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 9 11 12	74.000	85.000
TPH-gas fraction	5 6 7 8 9 10 11 12 13	5 6 9 12	76.000	270.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	1 2 3 4	260.000	23000.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW32

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 8 12	110.000	330.000
Antimony (F)	1 5 6 7 8 9 10 11 12 13	5 9 10 11	5.000	12.000
Arsenic	5 6 7 8 9 10 11 12 13	7 13	5.100	6.600
Arsenic (F)	1 5 6 7 8 9 10 11 12 13	1 10	3.932	6.900
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	26.000	72.000
Barium (F)	1 5 6 7 8 9 10 11 12 13	1 6 7 8 9 10 11 12 13	18.000	48.000
Boron (F)	1	1	332.329	332.329
Cadmium (F)	1 5 6 7 8 9 10 11 12 13	1	30.987	30.987
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	45000.000	85800.000
Calcium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	44000.000	96000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 11 12 13	1.100	5.600
Chromium (F)	1 6 7 8 9 10 11 12 13	10 11 13	1.200	12.000
Copper	5 6 7 8 9 10 11 12 13	12 13	1.000	1.300
Copper (F)	1 5 6 7 8 9 10 11 12 13	8 9 10 13	1.100	3.200
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1600.000	9600.000
Iron (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	5 6 7 8 10 11 12 13	110.000	5500.000
Lead	5 6 7 8 9 10 11 12 13	6 12	2.100	4.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	109000.000	203000.000
Magnesium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12	110000.000	240000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	180.000	530.000
Manganese (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 8 9 10 11 12 13	57.000	460.000
Nickel	5 6 7 8 9 10 11 12 13	5 6	4.000	17.000
Nickel (F)	1 5 6 7 8 9 10 11 12 13	5 13	6.500	14.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	15000.000	33600.000
Potassium (F)	1 2 3 4 5 6 7 8 9 10 11 12 13	1 3 4 5 6 7 8 9 10 11 12 13	13862.434	35500.000
Silver (F)	1 5 6 7 8 9 10 11 12 13	13	1.500	1.500
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	280000.000	879000.000
Sodium (F)	1 2 3 4 5 7 8 9 10 11 12 13	1 2 3 4 5 7 8 9 10 11 12 13	283439.500	943000.00
Zinc	5 6 7 8 9 10 11 12 13	6 9 13	12.000	25.00
Zinc (F)	1 5 6 7 8 9 10 11 12 13	1 5 6 7 13	13.000	160.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	586000.000	658000.000
Chloride	2 3 4	2 3 4	600000.000	760000.000
Fluoride	2 3 4	2 4	1220.000	1830.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	137.000	420.000
Sulfate	2 3 4	2 3 4	92400.000	116000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13000.000	3660000.000
VOLATILE ORGANICS				
1,1,1-Trichloroethane	1 2 3 4 5 6 7 8 9 10 11 12 13	2 3	400.000	1000.000
1,2-Dichloroethenes (cis & trans)	1 2 3 4 9 10 11 12 13	9 10 11	0.810	2.900
Tetrachloroethene	1 2 3 4 5 6 7 8 9 10 11 12 13	2	3.600	3.600
Trichloroethene	1 2 3 4 5 6 7 8 9 10 11 12 13	2 3 5	1.400	140.000
Trimethylsilanol	5	5	0.080	0.080
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	0.880	7.200
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 11 12 13	70.000	160.000
Total Recoverable Petroleum Hydrocarbons	1 2 3 4	3	214.000	214.000

Some analytical results have been deleted from this table due to blank contamination.
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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/2
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/
		Event 13	01/22/95 to 02/15/95

Well 937GW33

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 9 10 13	270.000	560.000
Aluminum (F)	5 7 8 9 10 11 12 13	5 11	110.000	110.000
Antimony (F)	5 6 7 8 9 10 11 12 13	5 9	5.900	10.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	17.000	110.000
Barium (F)	5 6 7 8 9 10 11 12 13	6 7 8 10 11 12	13.000	140.000
Cadmium	5 6 7 8 9 10 11 12 13	13	0.510	0.510
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	18600.000	210000.000
Calcium (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 6 7 8 9 10 11 12 13	20200.000	410000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	4.900	14.000
Chromium (F)	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	2.200	12.000
Copper	5 6 7 8 9 10 11 12 13	9 10 13	2.100	4.400
Copper (F)	5 6 7 8 9 10 11 12 13	9 10 11 12	1.700	2.600
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	710.000	3000.000
Iron (F)	2 3 4 5 6 7 8 9 10 11 12 13	5 6 7 8 10 11 12	30.000	2700.000
Lead	5 6 7 8 9 10 11 12 13	6 7 9 10 11 12 13	1.400	16.000
Lead (F)	5 6 7 8 9 10 11 12 13	10	7.800	7.800
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	20800.000	232000.000
Magnesium (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 6 7 8 9 10 11 12 13	18000.000	480000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	55.000	590.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 10 11 12	30.000	450.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	9.500	25.000
Nickel (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12	5.100	22.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12	9000.000	49400.000
Potassium (F)	2 3 4 5 6 7 8 9 10 11 12 13	3 4 5 6 7 8 9 10 11 12 13	5300.000	130000.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	40100.000	5100000.000
Sodium (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 6 7 8 9 10 11 12 13	43300.000	4900000.000
Vanadium	5 6 7 8 9 10 11 12 13	6	8.000	8.000
Zinc	5 6 7 8 9 10 11 12 13	6 10	23.000	45.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	237000.000	304000.000
Chloride	2 3 4	2 3 4	70000.000	5000000.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	14.900	150.000
Sulfate	2 3 4	2 3 4	21600.000	500000.000
Total Dissolved Solids	4 5 6 7 8 9 10 11 12 13	4 5 6 7 8 9 10 11 12 13	4700.000	11600000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	2 3 4 9 10 11 12 13	10 11 12 13	0.770	2.400
Trimethylsilanol	5	5	0.400	0.400
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	0.780	3.100
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 13	65.000	90.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW34

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 10 13	110.000	550.000
Antimony (F)	5 6 7 8 9 10 11 12 13	9 10	5.000	6.100
Arsenic	5 6 7 8 9 10 11 12 13	9 12	5.200	6.200
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	87.000	210.000
Barium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	57.000	200.000
Cadmium	5 6 7 8 9 10 11 12 13	9 11	0.530	0.670
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	50900.000	76600.000
Calcium (F)	2 4 5 6 7 8 9 10 11 12 13	2 4 5 6 7 8 9 10 11 12 13	47000.000	74500.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1.300	21.000
Chromium (F)	6 7 8 9 10 11 12 13	6 8 9 11 12 13	2.500	23.000
Cobalt	5 6 7 8 9 10 11 12 13	13	12.000	12.000
Copper	5 6 7 8 9 10 11 12 13	9 13	1.900	1.900
Copper (F)	5 6 7 8 9 10 11 12 13	9 12 13	1.300	2.500
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	3400.000	18400.000
Iron (F)	2 4 5 6 7 8 9 10 11 12 13	2 4 5 6 7 8 9 10 11 12 13	119.000	12600.000
Lead	5 6 7 8 9 10 11 12 13	10 12 13	1.000	3.500
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	61400.000	98700.000
Magnesium (F)	2 4 5 6 7 8 9 10 11 12 13	2 4 5 6 7 8 9 10 11 12 13	8100.000	102000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1100.000	2500.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	690.000	1600.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 9 10 11 13	6.200	34.000
Nickel (F)	5 6 7 8 9 10 11 12 13	5 6 9 11 13	4.000	11.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	5500.000	13000.000
Potassium (F)	2 4 5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6100.000	13000.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	31700.000	74000.000
Sodium (F)	2 4 5 6 7 8 9 10 11 12 13	2 4 5 6 7 8 9 10 11 12 13	36000.000	86000.000
Zinc	5 6 7 8 9 10 11 12 13	5 6 9 10	9.000	51.000
Zinc (F)	5 6 7 8 9 10 11 12 13	10	130.000	130.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	622000.000	792000.000
Chloride	2 3 4	2 3 4	31000.000	77000.000
Fluoride	2 3 4	4	919.000	919.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	25.600	440.000
Sulfate	2 3 4	2 3 4	12400.000	28700.000
Total Dissolved Solids	4 5 6 7 8 9 10 11 12 13	4 5 6 7 8 9 10 11 12 13	5300.000	1770000.000
VOLATILE ORGANICS				
1,1-Dichloroethane	2 3 4 5 6 8 9 10 11 12 13	2 5 8	0.870	4.700
1,2-Dichloroethenes (cis & trans)	2 3 4 9 10 11 12 13	10 11 12	0.860	3.400
Trichloroethene	2 3 4 5 6 7 8 9 10 11 12 13	6 9 10 11 12 13	0.500	10.000
cis-1,2-Dichloroethene	5 6 7 8	5 7 8	1.400	2.700
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	9 12 13	50.000	100.000
TPH-gas fraction	5 6 7 8 9 10 11 12 13	6	80.000	80.000
Total Recoverable Petroleum Hydrocarbons	2 3 4	2 3	249.000	3070.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW35

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6	120.000	450.000
Aluminum (F)	5 7 8 9 10 11 12 13	5	110.000	110.000
Arsenic	5 6 7 8 9 10 11 12 13	6 7 9 10 11 13	6.000	12.000
Arsenic (F)	5 6 7 8 9 10 11 12 13	6 7 9 10 11 12 13	5.000	8.700
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	13.000	44.000
Barium (F)	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	12.000	37.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	46000.000	150000.000
Calcium (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 6 7 8 9 10 11 12 13	6100.000	150000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	3.900	15.000
Chromium (F)	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	2.000	21.000
Copper	5 6 7 8 9 10 11 12 13	13	3.800	3.800
Copper (F)	5 6 7 8 9 10 11 12 13	13	2.700	2.700
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	420.000	1600.000
Iron (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 4 5 6 7 8 9 10 11 12 13	130.000	2510.000
Lead	5 6 7 8 9 10 11 12 13	6	6.000	6.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	70500.000	300000.000
Magnesium (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 6 7 8 9 10 11 12 13	10000.000	300000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	30.000	160.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	29.000	160.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 11 13	5.000	8.200
Nickel (F)	5 6 7 8 9 10 11 12 13	5 13	5.400	8.800
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14300.000	60000.000
Potassium (F)	2 3 4 5 6 7 8 9 10 11 12 13	4 5 6 7 8 9 10 11 12 13	15500.000	60000.000
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	52200.000	5300000.000
Sodium (F)	2 3 4 5 6 7 8 9 10 11 12 13	2 3 4 5 6 7 8 9 10 11 12 13	14000.000	5300000.000
Zinc	5 6 7 8 9 10 11 12 13	6	22.000	22.000
MISCELLANEOUS PARAMETERS				
Bicarbonate	2 3 4	2 3 4	767000.000	816000.000
Chloride	2 3 4	2 3 4	130000.000	1200000.000
Fluoride	2 3 4	2 4	1050.000	1640.000
Nitrate, Nitrate-non specific	2 3 4	2 3 4	53.400	190.000
Sulfate	2 3 4	2 3 4	29300.000	150000.000
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6200.000	5200000.000
Total Dissolved Solids (F)	4	4	924000.000	924000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	2 3 4 9 10 11 12 13	9 10 11 12 13	1.500	9.100
Acetone	2 3 4 5 6 7 8 9 10 11 12 13	6	12.000	12.000
Methylene chloride (Dichloromethane)	2 3 4 5 6 7 8 9 10 11 12 13	5	2.800	2.800
Trichloroethene	2 3 4 5 6 7 8 9 10 11 12 13	6 9 13	0.550	1.200
Vinyl chloride (Chloroethene)	2 3 4 5 6 7 8 9 10 11 12 13	2 4 5 6 7 8 9 10 11 12 13	5.200	20.000
cis-1,2-Dichloroethene	5 6 7 8	5 6 7 8	1.400	4.200
trans-1,2-Dichloroethene	5 6 7 8	5 6 7 8	0.500	1.200
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	9	51.000	51.000
TPH-gas fraction	5 6 7 8 9 10 11 12 13	6	70.000	70.000
Total Recoverable Petroleum Hydrocarbons	2 3 4	2 4	437.000	102000.000

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Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (32 of 40)

Well 937GW36

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	180.000	7700.000
Aluminum (F)	5 7 8 9 10 11 12 13	5 7	260.000	15000.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6 13	6.000	13.000
Arsenic (F)	5 6 7 8 9 10 11 12 13	5	7.300	7.300
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	24.000	57.000
Barium (F)	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	20.000	39.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	22000.000	69000.000
Calcium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	23000.000	69200.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	8.200	1000.000
Chromium (F)	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	4.100	33.000
Cobalt	5 6 7 8 9 10 11 12 13	6	20.000	20.000
Copper	5 6 7 8 9 10 11 12 13	8 9 10 13	1.800	13.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	74.000	54000.000
Iron (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13600.000	34200.000
Lead	5 6 7 8 9 10 11 12 13	5 6 8 9 10 11 12 13	3.700	27.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	73000.000	190000.000
Magnesium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	87000.000	190000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	420.000	1900.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	680.000	1700.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6.100	230.000
Nickel (F)	5 6 7 8 9 10 11 12 13	5 8 9 13	6.100	13.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6000.000	9000.000
Potassium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6200.000	9600.000
Selenium	5 6 7 8 9 10 11 12 13	11	8.000	8.000
Selenium (F)	5 6 7 8 9 10 11 12 13	11	5.900	5.900
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	43100.000	88000.000
Sodium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	48900.000	88300.000
Vanadium	5 6 7 8 9 10 11 12 13	6	40.000	40.000
Zinc	5 6 7 8 9 10 11 12 13	6 13	36.000	38.000
Zinc (F)	5 6 7 8 9 10 11 12 13	5 9 13	23.000	390.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	9800.000	2430000.000
VOLATILE ORGANICS				
1,1-Dichloroethene	5 6 7 8 9 10 11 12 13	6 7	0.500	3.500
1,2,4-Trimethylbenzene	7 8	7 8	34.000	52.000
1,2-Dichloroethane	5 6 7 8 9 10 11 12 13	6	6.200	6.200
1,3,5-Trimethylbenzene	7 8	7 8	22.000	23.000
4-Isopropyltoluene	7 8	7	2.600	2.600
Benzene	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	34.000	1000.000
Chlorobenzene	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	7.800	230.000
Ethylbenzene	5 6 7 8 9 10 11 12 13	6 7 11 12	3.400	83.000
Isopropylbenzene	7 8	7 8	12.000	23.000
Methylene chloride (Dichloromethane)	5 6 7 8 9 10 11 12 13	5	2.500	2.500
Toluene	5 6 7 8 9 10 11 12 13	6 7 10 11 12 13	7.600	220.000
Vinyl chloride (Chloroethene)	5 6 7 8 9 10 11 12 13	5 8 9 12	4.100	86.000
Xylene (o)	7 8 9 10 11 12 13	7 8 9 10 11 12 13	3.300	88.000
Xylenes (Total)	5 6	5 6	5.200	870.000
Xylenes (m/p)	7 8 9 10 11 12 13	7 8 9 10 11 12 13	4.000	75.000
cis-1,2-Dichloroethene	5 6 7 8	5	43.000	43.000
n-Butylbenzene	7 8	7	6.500	6.500
n-Propylbenzene	7 8	7	24.000	24.000
sec-Butylbenzene	7 8	8	8.200	8.200
trans-1,2-Dichloroethene	5 6 7 8	5 6	0.560	83.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore.
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW36

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
SEMIVOLATILE ORGANICS				
1,2-Dichlorobenzene	7 8	7 8	9.200	11.000
1,4-Dichlorobenzene	7 8	7	6.200	6.200
Naphthalene	7 8	7 8	11.000	20.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	440.000	50000.000
TPH-gas fraction	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	230.000	3900.000

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Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW37

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 8 9 10 11 12 13	250.000	4900.000
Aluminum (F)	5 7 8 9 10 11 12 13	5	160.000	160.000
Antimony (F)	5 6 7 8 9 10 11 12 13	5 10	5.900	17.000
Arsenic	5 6 7 8 9 10 11 12 13	5 8 12 13	5.500	10.000
Arsenic (F)	5 6 7 8 9 10 11 12 13	5	10.000	10.000
Barium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	47.000	220.000
Barium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	49.000	200.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	28900.000	164000.000
Calcium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	40200.000	167000.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	140.000	34000.000
Chromium (F)	6 7 8 9 10 11 12 13	6 7 9 10 11 12 13	2.400	12.000
Cobalt	5 6 7 8 9 10 11 12 13	11	13.000	13.000
Cobalt (F)	5 6 7 8 9 10 11 12 13	12	14.000	14.000
Copper	5 6 7 8 9 10 11 12 13	5 7 8 9 10 11 12 13	4.100	26.000
Copper (F)	5 6 7 8 9 10 11 12 13	7 8 9 10 11 12 13	1.000	11.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4000.000	35400.000
Iron (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 12 13	90.000	660.000
Lead	5 6 7 8 9 10 11 12 13	6 8 9 10 11 12 13	3.300	15.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	53800.000	400000.000
Magnesium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	64700.000	422000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	82.000	460.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	31.000	420.000
Mercury (F)	6 7 8 9 10 11 12 13	6	0.300	0.300
Molybdenum	7 8 9 10 11 12 13	8 10 11 12 13	20.000	44.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	78.000	230.000
Nickel (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	58.000	190.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	21600.000	110000.000
Potassium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	34400.000	132000.000
Selenium	5 6 7 8 9 10 11 12 13	11	44.000	44.000
Selenium (F)	5 6 7 8 9 10 11 12 13	11	43.000	43.000
Silver	5 6 7 8 9 10 11 12 13	7 11	1.100	1.500
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	628000.000	19000000.000
Sodium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	900000.000	9300000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 8 9 10 11 12 13	14.000	41.000
Zinc	6 7 8 9 10 11 12 13	6 9 13	25.000	48.000
Zinc (F)	6 7 8 9 10 11 12 13	10	120.000	120.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	25000.000	26000000.000
VOLATILE ORGANICS				
Trimethylsilanol	5	5	1.200	1.200
cis-1,2-Dichloroethene	5 6 7 8	5	0.590	0.590
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	6 7 9 11 12 13	54.000	110.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/9
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/9
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW38

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6 8 10 13	100.000	4200.000
Aluminum (F)	5 7 8 9 10 11 12 13	5	290.000	290.000
Antimony (F)	5 6 7 8 9 10 11 12 13	8 9 10	6.400	14.000
Arsenic	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	7.600	14.000
Arsenic (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6.500	14.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	27.000	72.000
Barium (F)	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	21.000	67.000
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1900.000	4700.000
Calcium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	1900.000	4600.000
Chromium	5 6 7 8 9 10 11 12 13	5 6 7 9 10 11 12 13	4.000	99.000
Chromium (F)	6 7 8 9 10 11 12 13	11 12	9.100	12.000
Copper	5 6 7 8 9 10 11 12 13	8 9 13	1.000	4.600
Copper (F)	5 6 7 8 9 10 11 12 13	6 10 11 12 13	1.400	14.000
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	110.000	5900.000
Iron (F)	5 6 7 8 9 10 11 12 13	5 6 7 13	150.000	1400.000
Lead	5 6 7 8 9 10 11 12 13	9	4.500	4.500
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4800.000	6600.000
Magnesium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	4200.000	5500.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 12 13	60.000	130.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	51.000	89.000
Nickel	5 6 7 8 9 10 11 12 13	5 6 7 8 9 11 13	5.900	120.000
Nickel (F)	6 7 8 9 10 11 12 13	6 8 9	44.000	62.000
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14300.000	17000.000
Potassium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	13100.000	17600.000
Selenium	5 6 7 8 9 10 11 12 13	7	5.500	5.500
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	257000.000	284000.000
Sodium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	246000.000	314000.000
Vanadium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	16.000	23.000
Vanadium (F)	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	14.000	24.000
Zinc	6 7 8 9 10 11 12 13	6	30.000	30.000
Zinc (F)	6 7 8 9 10 11 12 13	6 13	20.000	30.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	6400.000	1000000.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	9	68.000	68.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW39

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	5 6 7 8 9 10 11 12 13	5 6	430.000	460.000
Aluminum (F)	5 7 8 9 10 11 12 13	5 10	110.000	170.000
Antimony (F)	5 6 7 8 9 10 11 12 13	5	13.000	13.000
Arsenic	5 6 7 8 9 10 11 12 13	5	6.700	6.700
Arsenic (F)	5 6 7 8 9 10 11 12 13	5 13	8.200	16.000
Barium	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	15.000	110.000
Barium (F)	5 6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	11.000	96.000
Cadmium (F)	5 6 7 8 9 10 11 12 13	10	0.740	0.740
Calcium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	17000.000	299000.000
Calcium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	17000.000	258000.000
Chromium	6 7 8 9 10 11 12 13	6 7 8 9 10 11 12 13	1.600	7.500
Chromium (F)	6 7 8 9 10 11 12 13	6 7 8 9 10 11 13	1.200	6.200
Copper	5 6 7 8 9 10 11 12 13	8 9 10 11 12 13	1.100	3.300
Copper (F)	5 6 7 8 9 10 11 12 13	8 9 10 12	2.000	4.800
Iron	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	180.000	7500.000
Iron (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 12 13	110.000	3000.000
Lead	5 6 7 8 9 10 11 12 13	6 9 11	1.000	7.000
Magnesium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	38000.000	820000.000
Magnesium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	37000.000	748000.000
Manganese	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	23.000	430.000
Manganese (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 10 11 12 13	19.000	400.000
Mercury (F)	6 7 8 9 10 11 12 13	6 8	0.190	0.400
Nickel	6 7 8 9 10 11 12 13	8 9 10 11 12 13	5.500	9.600
Nickel (F)	6 7 8 9 10 11 12 13	9 10 11 12 13	5.200	6.300
Potassium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	25000.000	261000.000
Potassium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	24000.000	299000.000
Silver	5 6 7 8 9 10 11 12 13	8	6.700	6.700
Sodium	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	520000.000	6760000.000
Sodium (F)	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	490000.000	6500000.000
Vanadium	5 6 7 8 9 10 11 12 13	6	7.000	7.000
Zinc	6 7 8 9 10 11 12 13	13	22.000	22.000
Zinc (F)	6 7 8 9 10 11 12 13	10	26.000	26.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	5 6 7 8 9 10 11 12 13	5 6 7 8 9 10 11 12 13	14000.000	21000000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	9 10 11 12 13	11 12 13	0.680	1.200
cis-1,2-Dichloroethene	5 6 7 8	5 7	1.100	3.400
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	5 6 7 8 9 10 11 12 13	7 9 13	69.000	120.000

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See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Table 6.4 - 14 Summary of Groundwater Sample Detections, Building 937, RI and IRA Page (37 of 40)

Well 937GW40

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Antimony (F)	10 11 12 13	10	5.200	5.200
Arsenic	10 11 12 13	10	5.200	5.200
Barium	10 11 12 13	10 11 12	11.000	24.000
Barium (F)	10 11 12 13	11 12 13	11.000	16.000
Calcium	10 11 12 13	10 11 12 13	25000.000	30500.000
Calcium (F)	10 11 12 13	10 11 12 13	26500.000	31700.000
Chromium	10 11 12 13	10 11 12 13	1.200	2.200
Chromium (F)	10 11 12 13	10 11 12 13	1.000	14.000
Copper	10 11 12 13	10 12	8.600	27.000
Copper (F)	10 11 12 13	10 12 13	1.500	9.600
Iron	10 11 12 13	10 11 12 13	310.000	470.000
Iron (F)	10 11 12 13	11 13	150.000	250.000
Lead	10 11 12 13	10 12	1.600	5.600
Magnesium	10 11 12 13	10 11 12 13	73200.000	87400.000
Magnesium (F)	10 11 12 13	10 11 12 13	78700.000	89600.000
Manganese	10 11 12 13	10 11 12 13	180.000	220.000
Manganese (F)	10 11 12 13	10 11 12 13	190.000	220.000
Potassium	10 11 12 13	10 11 12 13	12000.000	18900.000
Potassium (F)	10 11 12 13	10 11 12 13	11600.000	19100.000
Sodium	10 11 12 13	10 11 12 13	252000.000	379000.000
Sodium (F)	10 11 12 13	10 11 12 13	247000.000	385000.000
Zinc	10 11 12 13	10 12	22.000	35.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	10 11 12 13	10 11 12 13	1130000.000	1470000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	10 11 12 13	10 11 12 13	1100.000	2400.000
Trichloroethene	10 11 12 13	10	25.000	25.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	10 11 12 13	11 12	60.000	120.000

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Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW41

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	10 11 12 13	10 11	120.000	890.000
Barium	10 11 12 13	10 11	15.000	20.000
Cadmium	10 11 12 13	13	0.530	0.530
Calcium	10 11 12 13	10 11 12 13	14900.000	21200.000
Calcium (F)	10 11 12 13	10 11 12 13	16400.000	22800.000
Chromium	10 11 12 13	10 11 12 13	1.800	12.000
Chromium (F)	10 11 12 13	10 11 13	1.800	5.700
Copper	10 11 12 13	10	1.100	1.100
Copper (F)	10 11 12 13	10	1.500	1.500
Iron	10 11 12 13	10 11 12 13	690.000	2700.000
Iron (F)	10 11 12 13	10 11 12 13	180.000	730.000
Lead	10 11 12 13	10	5.200	5.200
Magnesium	10 11 12 13	10 11 12 13	67300.000	85500.000
Magnesium (F)	10 11 12 13	10 11 12 13	73100.000	89200.000
Manganese	10 11 12 13	10 11 12 13	65.000	200.000
Manganese (F)	10 11 12 13	10 11 12 13	71.000	150.000
Nickel	10 11 12 13	10	20.000	20.000
Sodium	10 11 12 13	10 11 12 13	62900.000	74700.000
Sodium (F)	10 11 12 13	10 11 12 13	68900.000	80800.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	10 11 12 13	10 11 12 13	523000.000	582000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	10 11 12 13	10 11 12 13	38.000	800.000
Benzene	10 11 12 13	10 12 13	2.300	22.000
Vinyl chloride (Chloroethene)	10 11 12 13	10 12	9.500	43.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	10 11 12 13	11 13	91.000	95.000
TPH-gas fraction	10 11 12 13	10 11	82.000	100.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/
		Event 13	01/22/95 to 02/15/95

Well 937GW42

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Antimony (F)	10 11 12 13	10	10.000	10.000
Arsenic	10 11 12 13	10	5.200	5.200
Barium	10 11 12 13	10 11 12 13	34.000	200.000
Barium (F)	10 11 12 13	10 11 12 13	30.000	170.000
Cadmium	10 11 12 13	11 13	0.630	1.500
Calcium	10 11 12 13	10 11 12 13	49300.000	232000.000
Calcium (F)	10 11 12 13	10 11 12 13	46900.000	228000.000
Chromium	10 11 12 13	10 11 12 13	3.900	13.000
Chromium (F)	10 11 12 13	10 11 12 13	2.100	11.000
Cobalt (F)	10 11 12 13	12	11.000	11.000
Copper	10 11 12 13	12	2.800	2.800
Copper (F)	10 11 12 13	12	2.900	2.900
Iron	10 11 12 13	10 11 12 13	4800.000	10300.000
Iron (F)	10 11 12 13	10 11 12 13	2200.000	10100.000
Lead	10 11 12 13	12	1.200	1.200
Magnesium	10 11 12 13	10 11 12 13	121000.000	521000.000
Magnesium (F)	10 11 12 13	10 11 12 13	117000.000	527000.000
Manganese	10 11 12 13	10 11 12 13	260.000	1100.000
Manganese (F)	10 11 12 13	10 11 12 13	250.000	1100.000
Mercury	10 11 12 13	12	0.270	0.270
Nickel	10 11 12 13	11 12	5.800	6.000
Nickel (F)	10 11 12 13	11	6.100	6.100
Potassium	10 11 12 13	10 11 12 13	63300.000	142000.000
Potassium (F)	10 11 12 13	10 11 12 13	65800.000	141000.000
Silver	10 11 12 13	10 11 13	2.000	6.100
Silver (F)	10 11 12 13	10 11	0.810	0.930
Sodium	10 11 12 13	10 11 12 13	1390000.000	3940000.000
Sodium (F)	10 11 12 13	10 12 13	1550000.000	3330000.000
Zinc	10 11 12 13	11 13	22.000	50.000
Zinc (F)	10 11 12 13	10 13	44.000	76.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	10 11 12 13	10 11 12 13	5010000.000	13100000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	10 11 12 13	10 11 12 13	4.000	21.000
Benzene	10 11 12 13	13	0.260	0.260
Chloroethane	10 11 12 13	11	0.520	0.520
Vinyl chloride (Chloroethene)	10 11 12 13	10 11 12 13	0.840	11.000
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	10 11 12 13	11 13	57.000	68.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/94
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/94
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/94
		Event 13	01/22/95 to 02/15/95

Well 937GW43

(Units in µg/L)	Sampling Events	Events With Detections	Minimum Value	Maximum Value
INORGANICS				
Aluminum	10 11 12 13	11	1300.000	1300.000
Barium	10 11 12 13	11	19.000	19.000
Calcium	10 11 12 13	10 11 12 13	24200.000	29900.000
Calcium (F)	10 11 12 13	10 11 12 13	26500.000	34500.000
Chromium	10 11 12 13	10 11 12 13	3.000	10.000
Chromium (F)	10 11 12 13	10 11 12 13	2.200	12.000
Copper	10 11 12 13	10 11	1.900	1.900
Iron	10 11 12 13	10 11 12 13	230.000	2100.000
Iron (F)	10 11 12 13	10 11 12 13	120.000	270.000
Lead	10 11 12 13	11 12	1.300	4.000
Magnesium	10 11 12 13	10 11 12 13	78800.000	102000.000
Magnesium (F)	10 11 12 13	10 11 12 13	86400.000	114000.000
Manganese	10 11 12 13	10 11 12 13	83.000	190.000
Manganese (F)	10 11 12 13	10 11 12 13	96.000	250.000
Mercury	10 11 12 13	12	0.210	0.210
Nickel	10 11 12 13	11	13.000	13.000
Sodium	10 11 12 13	10 11 12 13	67300.000	92300.000
Sodium (F)	10 11 12 13	10 11 12 13	75500.000	96200.000
Zinc	10 11 12 13	10 11	25.000	50.000
Zinc (F)	10 11 12 13	13	20.000	20.000
MISCELLANEOUS PARAMETERS				
Total Dissolved Solids	10 11 12 13	10 11 12 13	571000.000	700000.000
VOLATILE ORGANICS				
1,2-Dichloroethenes (cis & trans)	10 11 12 13	10 11 12 13	11.000	16.000
Vinyl chloride (Chloroethene)	10 11 12 13	10 12	1.100	1.300
TOTAL PETROLEUM HYDROCARBONS				
TPH-diesel fraction	10 11 12 13	11	74.000	74.000

Some analytical results have been deleted from this table due to blank contamination.
Results are printed only if there was at least one detection
See Table R - 4 in Appendix R for complete listing of results and sampling events

Sampling events 1 through 6 conducted by Dames & Moore
Sampling events 7 through 13 conducted by Montgomery Watson

Event 1	10/01/90 to 12/14/90	Event 7	07/25/93 to 08/14/93
Event 2	10/01/91 to 10/30/91	Event 8	10/24/93 to 11/18/93
Event 3	12/02/91 to 12/06/91	Event 9	01/27/94 to 02/19/94
Event 4	03/04/92 to 03/09/92	Event 10	04/24/94 to 05/17/
Event 5	10/30/92 to 11/10/92	Event 11	07/27/94 to 08/20/
Event 6	04/05/93 to 04/14/93	Event 12	10/23/94 to 11/15/9
		Event 13	01/22/95 to 02/15/95

Table 6.4-15 Summary of Free Product Sample Detections, Building 937 Area, Initial RI

Sample ID	937FP01	937FP02	937FP11
Sample Site	UST 937FP01	Well 937GW02	Well 937GW11
Sample Date	11/08/90	11/08/90	11/07/90
INORGANICS (μg/g)			
Aluminum	NA	NA	NA
Antimony	NA	<0.2	<20
Arsenic	NA	4	8
Barium	NA	6	9
Beryllium	NA	<1	<1
Boron	NA	NA	NA
Cadmium	NA	<5	<5
Calcium	NA	NA	NA
Chromium	NA	<5	8
Cobalt	NA	<5	<5
Copper	NA	<5	<5
Iron	NA	NA	NA
Lead	NA	200	70
Mercury	NA	<0.05	<0.05
Nickel	NA	<10	<10
Potassium	NA	NA	NA
Magnesium	NA	NA	NA
Manganese	NA	NA	NA
Selenium	NA	<2	<2
Silver	NA	<5	10
Sodium	NA	NA	NA
Thallium	NA	27	<20
Vanadium	NA	<5	<5
Zinc	NA	9	10
VOLATILE ORGANICS (μg/g)			
Acetone	200[a]	<1,000[a]	<1,000[a]
Benzene	<4[a]	200[a]	<50[a]
Ethylbenzene	<4.0	2,000[a]	50[a]
Methylene Chloride	200[a]	<200[a]	<200[a]
Toluene	<4[a]	6,000[a]	<50[a]
Xylenes	<4[a]	6,000[a]	2,000[a]
SEMIVOLATILE ORGANICS (μg/g)			
2-Methylnaphthalene	NA	800[a]	500[a]
Naphthalene	NA	600	400[a]
TOTAL PETROLEUM HYDROCARBONS (μg/g)	NA	96%	100%
PHYSICAL PARAMETERS			
Specific Gravity	NA	0.8670 (ratio)	NA
Approximate Viscosity	NA	10.60 cst	NA

μg/g = micrograms per gram
< = less than method detection limit
NA = not analyzed
cst = centistokes
[a] = diluted sample

Table 6.4-16 Summary of Free Product Sample Detections for Fall 1991, Building 937 Area, IRA

Sample ID	937TK02	937FP11	937TK02
Site	UST 937FP01	Well 937GW02	Well 937GW11
Sample Date	10/28/91	10/30/91	10/28/91
VOLATILE ORGANICS (μg/g)			
Gasoline Constituents			
Benzene	90	300	30
Ethylbenzene	300	2,000	60
Methylene Chloride	100	<200	<20
Tetrachloroethene	300	<200	<20
Toluene	600	6,000	60
1,1,1-Trichloroethane	800	<200	<20
Xylenes	1,000	7,000	2,000
TOTAL PETROLEUM HYDROCARBONS (μg/g)			
TPH Pattern	900,000 Gas with heavy oil	600,000 Kerosene with heavy oil and light hydrocarbon compounds of unknown origin	800,000 Weathered gas with heavy oil
PHYSICAL PARAMETERS			
Specific Gravity (@60/60°F)	0.892	0.866	0.878
Viscosity (cSt)			
15°	149	25.1	16.5
18°	149	21.87	16.6

μg/g = micrograms per gram
< = less than lower detection limit
cSt = centistoke

Table 6.4-17 Summary of Soil Boring Sample Detections, Building 949, Follow-on RI (page 1 of 4)

Sample ID	949SB01	949SB01	949SB01	949SB02	949SB02	949SB02	949SB03
Sample Depth (ft bgs)	0.5	3.0	5.0	0.5	3.0	5.0	0.5
Sample Date	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94
INORGANICS (µg/g)							
Aluminum	6360	7030	4520	7170	5540	4430	9420
Arsenic	3.02[a]	2.37[a]	2.56[a]	<1.00 [ap]	3.19[a]	2.43[a]	<1.00 [ap]
Barium	17.1	159	21.5	211	48.8	17.6	294
Beryllium	0.154	0.193	0.176	0.497	0.149	0.170	0.595
Calcium	8510[a]	16300	2200	428	6340	3250	881
Chromium	537[a]	67.5	111	9.80	287	45.4	12.7
Cobalt	42.8[a]	9.07	10.1	11.6	20.4	5.84	15.5
Copper	77.3	104	28.6	108	73.9	62.4	145
Iron	60300[a]	15700	10800	18100	16700	9680	25500[a]
Lead	19.0[a]	217	7.10	15.7	61.0	6.64	18.7
Magnesium	54200[a]	8510	10800	880	41600[a]	3590	1550
Manganese	355	262	204	1430	274	126	1550
Nickel	381	67.8	99.4	12.9	312	28.9	18.0
Potassium	320	941	508	789	492	456	1190
Silver	<4.00[a]	4.46[a]	<0.400	<0.400	<0.400	<0.400	<0.400
Sodium	130	491	135	81.3	126	127	215
Vanadium	25.5	21.8	20.9	21.8	23.5	20.3	27.1
Zinc	49.3	152	30.4	32.5	61.8	58.3	41.1
VOLATILE ORGANICS (µg/g)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[p] = unreliable data

Table 6.4-17 Summary of Soil Boring Sample Detections, Building 949, Follow-on RI (page 2 of 4)

Sample ID	949SB01	949SB01	949SB01	949SB02	949SB02	949SB02	949SB03
Sample Depth (ft bgs)	0.5	3.0	5.0	0.5	3.0	5.0	0.5
Sample Date	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[p] = unreliable data

Table 6.4-17 Summary of Soil Boring Sample Detections, Building 949, Follow-on RI (page 3 of 4)

Sample ID	949SB03	949SB03	949SB04	949SB04	949SB04
Sample Depth (ft bgs)	3.0	5.0	0.5	3.0	5.0
Sample Date	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94
INORGANICS (µg/g)					
Aluminum	6220	4300	13200	5800	5760
Arsenic	3.71[a]	3.16[a]	<1.00 [ap]	1.88[a]	3.18[a]
Barium	78.3	51.4	237	47.5	20.7
Beryllium	0.161	0.194	0.606	0.193	0.201
Calcium	3440	3670	3900	1890	2380
Chromium	214	103	83.6	351	81.9
Cobalt	17.4	8.95	18.8	42.7	8.55
Copper	96.0	92.3	129	81.4	33.2
Iron	15600	11400	31400[a]	35100[a]	11300
Lead	34.6	42.2	33.3	6.02	6.17
Magnesium	15200	11900	12000	48700[a]	5250
Manganese	252	273	1170	441	177
Nickel	239	133	88.5	894	61.8
Potassium	535	498	1260	760	612
Silver	<0.400	<0.400	<0.400	<0.400	<0.400
Sodium	128	200	161	231	87.7
Vanadium	25.3	18.5	47.8	23.7	24.1
Zinc	107	78.0	75.7	55.4	30.2
VOLATILE ORGANICS (µg/g)					
No detections above reporting limit					

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[p] = unreliable data

Table 6.4-17 Summary of Soil Boring Sample Detections, Building 949, Follow-on RI (page 4 of 4)

Sample ID	949SB03	949SB03	949SB04	949SB04	949SB04
Sample Depth (ft bgs)	3.0	5.0	0.5	3.0	5.0
Sample Date	12/16/94	12/16/94	12/16/94	12/16/94	12/16/94
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH-diesel fraction					
No detections above reporting limit					
TPH-gas fraction					
No detections above reporting limit					

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[p] = unreliable data

Table 6.4-18 Summary of Surface Soil Sample Detections, Buildings 950 and 973, Initial RI

	Building 950[1]			Building 973		
Sample ID	950SS01	950SS02	950SS03	973SS01	973SS02	973SS03
Sample Date	10/10/90	10/10/90	10/10/90	10/10/90	10/10/90	10/10/90
INORGANICS (μg/g)						
Aluminum	16,400	17,300	17,700	2,470	2,510	3,740
Arsenic	3.41	3.87	3.45	<2.50	<2.50	<2.50
Barium	959	250	185	93.5	26.6	92.5
Beryllium	<0.427	0.516	<0.427	<0.427	<0.427	<0.427
Cadmium	7.58	9.89	8.41	<1.20	<1.20	2.39
Calcium	7,830	6,390	9,770	913	878	1,170
Chromium	148	213	166	128	109	150
Cobalt	12.4	21.7	12.6	7.42	7.36	6.68
Copper	88.0	76.2	36.6	6.82	<2.84	8.64
Cyanide	<0.250	0.282	<0.250	<0.250	<0.250	<0.250
Iron	31,800	33,900	26,100	6,030	4,000	9,280
Lead	1,200[a]	1,800[a]	507	509	318	829
Magnesium	10,200	18,600	14,500	973	750	1,260
Manganese	943	1,150	615	65.0	34.4	152
Mercury	0.280	1.6[a]	0.086	<0.050	<0.050	0.293
Nickel	94.3	202	97.0	9.20	4.18	8.45
Potassium	4,040	4,410	2,840	532	541	1,100
Silver	<0.803	3.68	<0.803	<0.803	<0.803	<0.803
Sodium	814	444	922	155	221	409
Vanadium	55.6	51.8	54.0	5.96	4.96	8.87
Zinc	610	842	239	155	107	222
VOLATILE ORGANICS (μg/g)						
	ND	ND	ND	NA	NA	NA
SEMIVOLATILE ORGANICS (μg/g)						
Bis(2-ethylhexyl) phthalate	<0.96[a]	4[a]	<4.8[a]	NA	NA	NA
Pyrene	<0.17[a]	0.3[a]	<0.83[a]	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
	30,000[a]	100,000[a]	30,000[a]	NA	NA	NA

μg/g = micrograms per gram
< = less than certified reporting limit
NA = not analyzed
ND = no detections above certified reporting limit
[a] = diluted sample
[1] = See Table 6.4-6 for subsurface soil analytical results from Building 950.

Table 6.4-19 Summary of Soil Boring Sample Detections, Buildings 950 and 973, Follow-on RI (page 1 of 4)

Sample ID	95073SB01	95073SB01	95073SB02	95073SB02	95073SB03	95073SB03	95073SB03
Sample Depth (ft bgs)	0.0	3.0	0.0	3.0	0.0	3.0	5.0
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	01/05/95
INORGANICS (µg/g)							
Lead-XRF	<25	<25	917	<25	<25	1160	<25
Lead	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<9.8	<9.6	<9.7	<10	<10	<10	NA
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 6.4-19 Summary of Soil Boring Sample Detections, Buildings 950 and 973, Follow-on RI (page 2 of 4)

Sample ID	95073SB04	95073SB04	95073SB05	95073SB05	95073SB06	95073SB06	95073SB07
Sample Depth (ft bgs)	0.0	3.0	0.0	3.0	0.0	3.0	0.0
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94
INORGANICS (µg/g)							
Lead-XRF	449	100	1500	<25	296	<25	201
Lead	NA	NA	41.7	NA	NA	4.77	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<10	<10	<10	<10	<9.6	<10	<10
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 6.4-19 Summary of Soil Boring Sample Detections, Buildings 950 and 973, Follow-on RI (page 3 of 4)

Sample ID	95073SB07	95073SB08	95073SB08	95073SB09	95073SB09	95073SB10	95073SB10
Sample Depth (ft bgs)	3.0	0.0	3.0	0.0	3.0	0.0	3.0
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94
INORGANICS (µg/g)							
Lead-XRF	33.7	<25	<25	<25	<25	301	<25
Lead	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<9.8	<9.8	<10	<10	<100	<100	<100
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 6.4-19 Summary of Soil Boring Sample Detections, Buildings 950 and 973, Follow-on RI (page 4 of 4)

Sample ID	95073SB11	95073SB11	95073SB12	95073SB12	95073SB13	95073SB13
Sample Depth (ft bgs)	0.0	3.0	0.0	3.0	0.0	3.0
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	01/05/95	01/05/95
INORGANICS (µg/g)						
Lead-XRF	<25	187	<25	100	<25	<25
Lead	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH (immunoassay)	>100[a]	<10	<100	<9.8	NA	NA
TPH-diesel fraction						
No detections above reporting limit						
TPH-gas fraction						
No detections above reporting limit						

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

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Table 6.4-20 Summary of Soil Sample Detections, Building 979 Area, Initial RI

Sample ID	979SO01A	979SO01B	979SO02A	979SO02B	979SO03A	979SO03B	979GW01B	979GW01A
Sample Depth (ft bgs)	3.0	6.0	3.0	5.5	3.0	5.5	2.0	6.0
Sample Date	10/03/90	10/03/90	10/03/90	10/03/90	10/03/90	10/03/90	10/02/90	10/02/90
VOLATILE ORGANICS								
No detections above certified reporting limit								
SEMIVOLATILE ORGANICS (μg/g)								
Endrin aldehyde*	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.2(c)
Fluoranthene	0.084	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
2-Methylnaphthalene	0.28	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Phenanthrene	1.2	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
TOTAL PETROLEUM HYDROCARBONS								
No detections above method detection limit								

μg/g = micrograms per gram
< = less than certified reporting limit
(c) = confirmed pesticide detection
* = not on target analyte list; additional information supplied by lab

Table 6.4-21 Summary of Groundwater Sample Detections, Building 979 Area, Initial RI

Sample ID	979GW01	979GW02	979GW03
Sample Date	12/10/90	12/11/90	12/11/90
VOLATILE ORGANICS (μg/L)			
1,1-Dichloroethene	1.8	<1.0	<1.0
1,2-Dichloroethene*	74	81	11
Trichloroethene	GT 150	15	7.8
Vinyl chloride/chloroethene	62	25	<12
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			
TOTAL PETROLEUM HYDROCARBONS (μg/L)	<100	<100	400

μg/L = micrograms per liter
< = less than certified reporting limit
GT = greater than upper certified reporting limit
* = analyzed as total 1,2-dichloroethene

Table 6.4-22 Summary of Soil Boring Sample Detections, Building 979, Supplemental RI (page 1 of 2)

Sample ID	979GW05	979GW07	979SB01
Sample Depth (ft bgs)	6.0	6.7	6.7
Sample Date	08/13/92	08/10/92	08/06/92
INORGANICS (μg/g)			
Aluminum	4890.000	4220.000	3290.000
Antimony	140.000	<41.300	<41.300
Arsenic	2.220[f]	3.650	5.120
Barium	7.910[f]	27.300	10.800
Cadmium	1.490	<0.515	<0.515
Calcium	9300.000[a]	4550.000	4310.000
Chromium	877.000	186.000	111.000
Cobalt	82.800	30.200	20.100
Copper	30.300	17.100	12.600
Iron	36000.000[a]	17000.000[a]	12000.000[a]
Lead	1.820[f]	22.000[a]	2.730
Magnesium	140000.000[a]	22000.000[a]	13000.000[a]
Manganese	422.000	243.000[f]	178.000
Mercury	<0.027	0.048	<0.027
Nickel	1130.000	245.000	120.000
Potassium	282.000	436.000	351.000
Selenium	1.350	<0.250	<0.250
Silver	0.750	<0.521	<0.521
Sodium	181.000[k]	187.000[k]	170.000[k]
Thallium	174.000[k]	66.800[k]	52.900[k]
Vanadium	36.800	29.600	20.600
Zinc	42.800	47.900	35.300
VOLATILE ORGANICS			
No detections above certified reporting limit			
SEMIVOLATILE ORGANICS (μg/g)			
Di-n-butylphthalate	<0.920	3.900	<0.920

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections confirmed
d = estimated value - below method detection limit
f = Data affected by blank contamination
k = data not verified by other lab results

Table 6.4-22 Summary of Soil Boring Sample Detections, Building 979, Supplemental RI (page 2 of 2)

Sample ID	979GW05	979GW07	979SB01
Sample Depth (ft bgs)	6.0	6.7	6.7
Sample Date	08/13/92	08/10/92	08/06/92
ORGANOCHLORINE PESTICIDES[c] (μg/g)			
Endrin	0.004[d]	<0.006	<0.006
POLYCHLORINATED BIPHENYLS			
No detections above certified reporting limit or method detection limit			
CHLORINATED HERBICIDES			
No detections above method detection limit			
TOTAL PETROLEUM HYDROCARBONS (μg/g)			
TPH-diesel fraction	29.000	31.000	1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections confirmed
d = estimated value - below method detection limit
f = Data affected by blank contamination
k = data not verified by other lab results

Table 6.4-23 Summary of Soil Boring Sample Detections, Building 979, Follow-on RI (page 1 of 1)

Sample ID	979SB04	979SB04	979SB04
Sample Depth (ft bgs)	7.0	18.0	33.0
Sample Date	11/20/94	11/20/94	11/20/94
MISCELLANEOUS PARAMETERS (µg/g)			
Total Organic Carbon	419	422	1900

µg/g = microgram per gram

Table 6 Summary of Groundwater Sample Detections, Building 979, emental RI (page 1 of 2)

Sample ID	979GW01	979GW02	979GW03	979GW04	979GW05[g]	979GW06[g]	979GW07
Sample Date	08/31/92	09/03/92	09/04/92	09/04/92	11/02/92	09/01/92	09/01/92
INORGANICS: filtered, except for cyanide and mercury (μg/L)							
Antimony	<38.000	<38.000	109.000	111.000	46.700	68.600	<38.000
Arsenic	4.580	6.080	3.840	7.680	8.320	5.330	10.600
Barium	12.200	11.200	59.400	333.000	21.100	50.100	17.500
Cadmium	8.960	<4.010	<4.010	<4.010	<4.010	<4.010	<4.010
Calcium	71800.000	39700.000	235000.000	273000.000	102000.000	98800.000	51700.000
Copper	<8.090	<8.090	<8.090	<8.090	40.600	<8.090	<8.090
Iron	<38.800	<38.800	<38.800[a]	<38.800	<38.800	486.000	<38.800
Lead	7.810	<1.260	<2.500[a]	<1.260[a]	<1.26	1.520	<1.260
Magnesium	101000.000	119000.000	660000.000[a]	620000.000[a]	231000.000	262000.000	77600.000
Manganese	1680.000[d]	109.000	<2.750[d]	434.000	2190.000[d]	268.000	371.000
Nickel	33.100[d]	<34.300	22.800[d]	48.700	24.700[d]	<34.300	<34.300
Potassium	14200.000	30300.000	203000.000	77400.000	9610.000	50200.000	22000.000
Selenium	<3.020	<3.020	<3.020	<3.020	3.940	7.240	<3.020
Sodium	106000.000	311000.000	4700000.000[a]	2900000.000[a]	319000.000	1300000.000[a]	107000.000
Vanadium	27.200	16.900	<11.000	18.200	19.300	36.800	19.900
MISCELLANEOUS PARAMETERS (μg/L)							
Alkalinity							
Total	GT 560000.000	560000.000	470000.000	445000.000	1030000.000	470000.000	593000.000
Bicarbonate	666000.000	548000.000	466000.000	442000.000	1030000.000	464000.000	583000.000
Carbonate	9260.000	11800.000	3650.000	2750.000	2850.000	6300.000	9100.000
Hydroxide	74.000	115.000	42.000	33.000	15.000	72.000	83.000
Chloride	81000.000	500000.000[a]	9600000.000[a]	6000000.000[a]	650000.000[a]	3000000.000[a]	50000.000[a]
Fluoride	<1000.000	<5000.000[a]	<50000.000[a]	<50000.000[a]	<10000.000[a]	<25000.000[a]	1100.000
Nitrate	<10.000	24.000	520.000[a]	1600.000[a]	53.900	83.100	19000.000[a]
Sulfate	29400.000	50000.000[a]	1300000.000[a]	850000.000[a]	150000.000[a]	320000.000[a]	24500.000
TDS	911000.000	1510000.000	GT 10000000.000	GT 10000000.000	2090000.000	6370000.000	747000.000

μg/L = micrograms per Liter
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
NA = not analyzed

a = diluted sample
b = estimated value - below certified reporting limit
f = data affected by blank contamination
g = well screened at bottom of aquifer. All other wells screened across water table

Table 6.4-24 Summary of Groundwater Sample Detections, Building 979, Supplemental RI (page 2 of 2)

Sample ID Sample Date	979GW01 08/31/92	979GW02 09/03/92	979GW03 09/04/92	979GW04 09/04/92	979GW05[g] 11/02/92	979GW06[g] 09/01/92	979GW07 09/01/92
VOLATILE ORGANICS (μg/L)							
Benzene	<0.060	<0.060	<0.060	<0.060	0.070	<0.060	<0.060
1,1-Dichloroethene	2.200	<0.160	<0.160	<0.160	1.500	<0.160	<0.160
c-1,2-Dichloroethene	60.000[a]	33.000	1.600	<0.160	3.400	60.000[a]	20.000
t-1,2-Dichloroethene	11.000	0.900	<0.160	<0.160	0.340	3.000	2.400
Trichloroethene	200.000[a]	17.000	<2.200	<2.200	85.000	<2.200	5.400
Vinyl chloride	60.000[a]	8.700	<0.160	<0.160	0.370	<0.160	36.000
SEMIVOLATILE ORGANICS (μg/L)							
Bis(2-ethylhexyl)phthalate	<1.000	<1.000	<1.000	<1.000	<1.000	2.900[f]	<1.000
ORGANOCHLORINE PESTICIDES							
No detections above method detection limit							
POLYCHLORINATED BIPHENYLS							
No detections above certified reporting limit							
CHLORINATED HERBICIDES							
No detections above method detection limit							
TOTAL PETROLEUM HYDROCARBONS (μg/L)							
TPH-diesel fraction	<50.000	<50.000	<50.000	<50.000	980.000	<50.000	70.000

μg/L = micrograms per Liter
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
NA = not analyzed

a = diluted sample
b = estimated value - below certified reporting limit
f = data affected by blank contamination
g = well screened at bottom of aquifer. All other wells screened across water table

Table 6.4-25 Summary of Filtered and Unfiltered Metals Detections in Groundwater, Building 979 Area, Supplemental RI

Sample ID	979GW01	979GW01	979GW04	979GW04	979GW06[b]	979GW06[b]
Sample Date	08/31/92	08/31/92	09/04/92	09/04/92	09/01/92	09/01/92
	UNFILTERED	FILTERED	UNFILTERED	FILTERED	UNFILTERED	FILTERED
INORGANICS (μg/L)						
Aluminum	< 141.000	< 141.000	3090.000	< 141.000	510.000	< 141.000
Antimony	< 38.000	< 38.000	108.000	111.000	96.100	68.600
Arsenic	4.690	4.580	8.100	7.680	7.040	5.330
Barium	14.500	12.200	349.000	333.000	39.800	50.100
Cadmium	6.490	8.960	< 4.010	< 4.010	< 4.010	< 4.010
Calcium	74400.000	71800.000	275000.000	273000.000	104000.000	98800.000
Chromium	< 6.020	< 6.020	187.000	< 6.020	< 6.020	< 6.020
Iron	175.000	< 38.800	15600.000	< 38.800	2460.000	486.000
Lead	1.630	7.810	3.150	< 1.260	< 1.260	1.520
Magnesium	103000.000	101000.000	590000.000	620000.000	268000.000	262000.000
Manganese	2160.000	1680.000	791.000	434.000	306.000	268.000
Nickel	< 34.300	< 34.300	617.000	48.700	< 34.300	< 34.300
Potassium	14400.000	14200.000	78000.000	77400.000	51500.000	50200.000
Selenium	< 3.020	< 3.020	< 3.020	< 3.020	< 3.020	7.240
Sodium	111000.000	106000.000	2700000.000	2900000.000	1400000.000[a]	1300000.000[a]
Vanadium	28.600	27.200	27.100	18.200	41.400	36.800

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[b] = well screened at bottom of aquifer. All other wells screened across the water table.

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 1 of 12)

Sample ID	979GW01	979GW01	979GW02	979GW02	979GW03	979GW03	979GW04
Sample Depth (ft bgs)	10.0	11.0	9.0	10.0	10.0	10.0	8.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	11/07/94	01/04/95	01/04/95
INORGANICS (µg/L)							
Aluminum	NA	141	NA	125	62.0	NA	NA
Antimony	NA	<1.11	NA	<1.11	2.00	NA	NA
Antimony (F)	NA	5.50	NA	7.00	1.70	NA	NA
Arsenic	NA	2.31	NA	5.78	<1.70[p]	NA	NA
Arsenic (F)	NA	2.70[n]	NA	<1.70[n]	<1.70[n]	NA	NA
Barium	NA	24.0	NA	15.0	51.0	NA	NA
Barium (F)	NA	11.0	NA	12.0	48.0	NA	NA
Beryllium (F)	NA	<1.00	NA	<1.00	<1.00	NA	NA
Cadmium (F)	NA	<3.00	NA	<3.00	<3.00	NA	NA
Calcium	NA	67800	NA	34600	148000	NA	NA
Calcium (F)	NA	62300	NA	34600	137000	NA	NA
Cobalt	NA	9.00	NA	<7.00	<7.00	NA	NA
Copper	NA	<1.00	NA	2.99[f]	<1.00	NA	NA
Copper (F)	NA	6.63	NA	4.81	2.45[m]	NA	NA
Cyanide	NA	<5.00	NA	<5.00	<5.00	NA	NA
Iron	NA	188	NA	374	<8.00	NA	NA
Iron (F)	NA	<8.00	NA	<8.00	<8.00	NA	NA
Lead	NA	1.08[f]	NA	2.00[f]	0.830[f]	NA	NA
Lead (F)	NA	<0.735	NA	<0.735	<0.735	NA	NA
Magnesium	NA	105000	NA	113000	444000	NA	NA
Magnesium (F)	NA	90500	NA	97500	425000	NA	NA
Manganese	NA	5020	NA	206	132	NA	NA
Manganese (F)	NA	1030	NA	97.0	<6.00	NA	NA
Mercury	NA	0.500[f]	NA	<0.110	<0.110	NA	NA
Nickel	NA	63.3	NA	16.1	28.2	NA	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = C[redacted]maly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 2 of 12)

Sample ID	979GW01	979GW01	979GW02	979GW02	979GW03	979GW03	979GW04
Sample Depth (ft bgs)	10.0	11.0	9.0	10.0	10.0	10.0	8.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	11/07/94	01/04/95	01/04/95
INORGANICS (µg/L)							
Nickel (F)	NA	68.4[a]	NA	5.90	17.0	NA	NA
Potassium	NA	10400	NA	27900	99500	NA	NA
Potassium (F)	NA	11000	NA	25800	92800	NA	NA
Selenium	NA	<1.72	NA	<1.72	<1.72	NA	NA
Selenium (F)	NA	<1.72	NA	<1.72	<1.72[m]	NA	NA
Silver	NA	<2.00[p]	NA	<2.00[p]	2.00[f]	NA	NA
Silver (F)	NA	2.00	NA	2.00	4.00	NA	NA
Sodium	NA	90100	NA	290000	2800000[a]	NA	NA
Sodium (F)	NA	90500	NA	274000	2710000[a]	NA	NA
Thallium	NA	<0.811	NA	<0.811	<0.811	NA	NA
Thallium (F)	NA	1.10	NA	<0.811	<0.811	NA	NA
Vanadium	NA	12.0	NA	5.00	<4.00	NA	NA
Vanadium (F)	NA	4.00	NA	<4.00	<4.00	NA	NA
Zinc	NA	8.00[f]	NA	5.00[f]	12.0[f]	NA	NA
Zinc (F)	NA	4.00	NA	<4.00	<4.00	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	673000	NA	537000	524000	NA	NA
Bicarbonate Alkalinity	NA	673000	NA	537000	524000	NA	NA
Carbonate Alkalinity	NA	<1000	NA	<1000	<1000	NA	NA
Hydroxide Alkalinity	NA	<1000	NA	<1000	<1000	NA	NA
Chloride	NA	77400	NA	456000	6160000	NA	NA
Nitrate	NA	5300	NA	264	626[a]	NA	NA
Sulfate	NA	78100	NA	48100	754000	NA	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 3 of 12)

Sample ID	979GW01	979GW01	979GW02	979GW02	979GW03	979GW03	979GW04
Sample Depth (ft bgs)	10.0	11.0	9.0	10.0	10.0	10.0	8.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	11/07/94	01/04/95	01/04/95
MISCELLANEOUS PARAMETERS (µg/L)							
Total Dissolved Solids	NA	886000	NA	1270000	9310000	NA	NA
VOLATILE ORGANICS (µg/L)							
1,1-Dichloroethene	1.70	NA	<0.555	NA	NA	<0.555	<0.555
1,2-Dichloroethane	0.540	NA	<0.456	NA	NA	<0.456	<0.456
Chloroform	<0.124	NA	<0.124	NA	NA	<0.124	<0.124
cis-1,2-Dichloroethene	41.3[a]	NA	23.0	NA	NA	42.0	<0.460
trans-1,2-Dichloroethene	4.27	NA	<0.428	NA	NA	<0.428	<0.428
Trichloroethene	109[a]	NA	10.1	NA	NA	21.3	<0.281
Vinyl chloride (Chloroethene)	10.3	NA	<0.393	NA	NA	<0.393	<0.393
Trichloroethene And Breakdown Products							
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	3.37[f]	NA	5.62[f]	4.58[f]	NA	NA
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = C[redacted]maly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 4 of 12)

Sample ID	979GW01	979GW01	979GW02	979GW02	979GW03	979GW03	979GW04
Sample Depth (ft bgs)	10.0	11.0	9.0	10.0	10.0	10.0	8.0
Sample Date	01/09/95	11/07/94	01/09/95	11/07/94	11/07/94	01/04/95	01/04/95
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-gas fraction	NA	79[m]	NA	<50	<50	NA	NA
TPH-diesel fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 5 of 12)

Sample ID	979GW04	979GW05	979GW05	979GW06	979GW06	979GW07	979GW07
Sample Depth (ft bgs)	12.0	11.0	23.0	8.0	35.0	8.0	12.0
Sample Date	11/11/94	01/09/95	11/07/94	01/09/95	11/11/94	01/09/95	11/11/94
INORGANICS (µg/L)							
Aluminum	1220[a]	NA	114	NA	598[a]	NA	<25.0
Antimony	<1.11	NA	<1.11	NA	<1.11	NA	<1.11
Antimony (F)	14.3	NA	6.30	NA	13.9	NA	3.30
Arsenic	<17.0[a]	NA	<1.70	NA	<17.0[a]	NA	2.00[f]
Arsenic (F)	<17.0[a]	NA	<1.70[n]	NA	<17.0[a]	NA	2.60
Barium	309[a]	NA	19.0	NA	<110[a]	NA	16.0
Barium (F)	294	NA	17.0	NA	24.0	NA	17.0
Beryllium (F)	1.00	NA	<1.00	NA	<1.00	NA	<1.00
Cadmium (F)	7.00	NA	<3.00	NA	<3.00	NA	<3.00
Calcium	216000[a]	NA	98900	NA	155000[a]	NA	45900
Calcium (F)	220000	NA	71800	NA	114000	NA	50100
Cobalt	<70.0[a]	NA	<7.00	NA	<70.0[a]	NA	<7.00
Copper	3.56[f]	NA	2.47[f]	NA	2.22[f]	NA	<1.00
Copper (F)	24.6	NA	3.40	NA	11.8	NA	<1.00
Cyanide	<5.00	NA	11.6	NA	<5.00	NA	<5.00
Iron	3340[a]	NA	139	NA	5440[a]	NA	657
Iron (F)	<8.00	NA	<8.00	NA	1500	NA	283
Lead	1.75[f]	NA	5.99[f]	NA	1.65[f]	NA	1.21[f]
Lead (F)	1.26	NA	1.46	NA	1.71	NA	<0.735
Magnesium	556000[a]	NA	233000	NA	432000[a]	NA	69800
Magnesium (F)	549000	NA	175000	NA	340000	NA	66300
Manganese	949[a]	NA	2610	NA	412[a]	NA	365
Manganese (F)	197	NA	1350	NA	278	NA	340
Mercury	0.900[f]	NA	0.600[f]	NA	<0.110	NA	<0.110
Nickel	192[a]	NA	26.0	NA	26.9[f]	NA	10.1[f]

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [illegible]omaly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 6 of 12)

Sample ID	979GW04	979GW05	979GW05	979GW06	979GW06	979GW07	979GW07
Sample Depth (ft bgs)	12.0	11.0	23.0	8.0	35.0	8.0	12.0
Sample Date	11/11/94	01/09/95	11/07/94	01/09/95	11/11/94	01/09/95	11/11/94
INORGANICS (µg/L)							
Nickel (F)	35.3	NA	18.0	NA	16.2	NA	10.1
Potassium	84400[f]	NA	4180	NA	70400[f]	NA	12700[f]
Potassium (F)	83500	NA	2870	NA	53700	NA	12300
Selenium	27.3[a]	NA	3.47	NA	<17.2[a]	NA	<1.72
Selenium (F)	41.0[a]	NA	<1.72	NA	<17.2[a]	NA	<1.72
Silver	<20.0[a]	NA	<2.00[p]	NA	<20.0[a]	NA	<2.00
Silver (F)	8.00	NA	3.00	NA	2.00	NA	<2.00
Sodium	2990000[a]	NA	335000	NA	2330000[a]	NA	75000
Sodium (F)	3060000[a]	NA	297000	NA	1670000[a]	NA	78200
Thallium	3.05	NA	<0.811	NA	<0.811	NA	<0.811
Thallium (F)	14.0	NA	<0.811	NA	<0.811	NA	<0.811
Vanadium	<40.0[a]	NA	<4.00	NA	<40.0[a]	NA	<4.00
Vanadium (F)	<4.00	NA	<4.00	NA	<4.00	NA	<4.00
Zinc	<40.0[a]	NA	26.0	NA	<40.0[a]	NA	<4.00
Zinc (F)	7.00	NA	<4.00	NA	7.00	NA	<4.00
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	531000	NA	942000	NA	526000	NA	592000
Bicarbonate Alkalinity	531000	NA	942000	NA	526000	NA	592000
Carbonate Alkalinity	<1000	NA	<1000	NA	<1000	NA	<1000
Hydroxide Alkalinity	<1000	NA	<1000	NA	<1000	NA	<1000
Chloride	7000000	NA	622000	NA	3990000	NA	91500
Nitrate	2600	NA	459	NA	<41.0	NA	<41.0
Sulfate	885000	NA	201000	NA	423000	NA	132000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 7 of 12)

Sample ID	979GW04	979GW05	979GW05	979GW06	979GW06	979GW07	979GW07
Sample Depth (ft bgs)	12.0	11.0	23.0	8.0	35.0	8.0	12.0
Sample Date	11/11/94	01/09/95	11/07/94	01/09/95	11/11/94	01/09/95	11/11/94
MISCELLANEOUS PARAMETERS (µg/L)							
Total Dissolved Solids	12900000	NA	1950000	NA	6720000	NA	680000
VOLATILE ORGANICS (µg/L)							
1,1-Dichloroethene	NA	<0.555	NA	<0.555	NA	<0.555	NA
1,2-Dichloroethane	NA	<0.456	NA	<0.456	NA	1.26	NA
Chloroform	NA	0.960	NA	<0.124	NA	<0.124	NA
cis-1,2-Dichloroethene	NA	0.600	NA	24.3	NA	8.21	NA
trans-1,2-Dichloroethene	NA	<0.428	NA	<0.428	NA	3.05	NA
Trichloroethene	NA	25.6	NA	1.00	NA	2.74	NA
Vinyl chloride (Chloroethene)	NA	<0.393	NA	<0.393	NA	41.4	NA
Trichloroethene And Breakdown Products							
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	22.1[f]	NA	5.31[f]	NA	5.58[f]	NA	17.4[f]
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = Q[redacted]maly observed
[n] = estimated value
[p] = unreliable data

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Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 8 of 12)

Sample ID	979GW04	979GW05	979GW05	979GW06	979GW06	979GW07	979GW07
Sample Depth (ft bgs)	12.0	11.0	23.0	8.0	35.0	8.0	12.0
Sample Date	11/11/94	01/09/95	11/07/94	01/09/95	11/11/94	01/09/95	11/11/94
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-gas fraction	<50	NA	<50	NA	<50	NA	<50
TPH-diesel fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 9 of 12)

Sample ID	979GW08	979GW09	979GW10
Sample Depth (ft bgs)	21.0	20.0	45.0
Sample Date	04/06/95	04/07/95	04/06/95
INORGANICS (µg/L)			
Aluminum	NA	NA	NA
Antimony	NA	NA	NA
Antimony (F)	NA	NA	NA
Arsenic	NA	NA	NA
Arsenic (F)	NA	NA	NA
Barium	NA	NA	NA
Barium (F)	NA	NA	NA
Beryllium (F)	NA	NA	NA
Cadmium (F)	NA	NA	NA
Calcium	42000	350000	270000
Calcium (F)	NA	NA	NA
Cobalt	NA	NA	NA
Copper	NA	NA	NA
Copper (F)	NA	NA	NA
Cyanide	NA	NA	NA
Iron	700	500	14000
Iron (F)	NA	NA	NA
Lead	NA	NA	NA
Lead (F)	NA	NA	NA
Magnesium	80000	900000	630000
Magnesium (F)	NA	NA	NA
Manganese	NA	NA	NA
Manganese (F)	NA	NA	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [illegible]maly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 10 of 12)

Sample ID	979GW08	979GW09	979GW10
Sample Depth (ft bgs)	21.0	20.0	45.0
Sample Date	04/06/95	04/07/95	04/06/95
INORGANICS (µg/L)			
Mercury	NA	NA	NA
Nickel	NA	NA	NA
Nickel (F)	NA	NA	NA
Potassium	11000	140000	230000
Potassium (F)	NA	NA	NA
Selenium	NA	NA	NA
Selenium (F)	NA	NA	NA
Silver	NA	NA	NA
Silver (F)	NA	NA	NA
Sodium	47000	5200000	3600000
Sodium (F)	NA	NA	NA
Thallium	NA	NA	NA
Thallium (F)	NA	NA	NA
Vanadium	NA	NA	NA
Vanadium (F)	NA	NA	NA
Zinc	NA	NA	NA
Zinc (F)	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)			
Alkalinity (Total as CaCO3)	482000[n]	344000	274000[n]
Bicarbonate Alkalinity	478000[n]	342000	274000[n]
Carbonate Alkalinity	<5[n]	25	8.5[n]
Hydroxide Alkalinity	3780[n]	1610	438[n]

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 11 of 12)

Sample ID	979GW08	979GW09	979GW10
Sample Depth (ft bgs)	21.0	20.0	45.0
Sample Date	04/06/95	04/07/95	04/06/95
MISCELLANEOUS PARAMETERS (µg/L)			
Chloride	36800[a]	8390000[a]	14100000[a]
Nitrate	<200	<4000[a]	43600[a]
Sulfate	62500	1180000[a]	1840000[a]
Total Dissolved Solids	540000	21000000	25000000
VOLATILE ORGANICS (µg/L)			
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
Chloroform	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Vinyl chloride (Chloroethene)	NA	NA	NA
Trichloroethene And Breakdown Products			
cis-1,2-Dichloroethene	3.5	<0.5	<0.5
trans-1,2-Dichloroethene	1.6	<0.5	<0.5
Trichloroethene	1.1	<0.5	<0.5
SEMIVOLATILE ORGANICS (µg/L)			
Bis(2-ethylhexyl) phthalate	NA	NA	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = C[redacted]maly observed
[n] = estimated value
[p] = unreliable data

Table 6.4-26 Summary of Groundwater Sample Detections, Building 979 Area, Follow-on RI (page 12 of 12)

Sample ID	979GW08	979GW09	979GW10
Sample Depth (ft bgs)	21.0	20.0	45.0
Sample Date	04/06/95	04/07/95	04/06/95
ORGANOCHLORINE PESTICIDES (µg/L)			
No detections above reporting limit			
POLYCHLORINATED BIPHENYLS (µg/L)			
No detections above reporting limit			
CHLORINATED HERBICIDES (µg/L)			
No detections above reporting limit			
TOTAL PETROLEUM HYDROCARBONS (µg/L)			
TPH-gas fraction	NA	NA	NA
TPH-diesel fraction			
No detections above reporting limit			

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 6.4-27 Summary of Discrete Groundwater Sample Detections, Building 979, Follow-on RI (page 1 of 5)

Sample ID	979SB02	979SB02	979SB02	979SB02	979SB03	979SB03	979SB03
Sample Depth (ft bgs)	12.0	18.0	35.0	44.5	10.0	20.0	35.0
Sample Date	11/19/94	11/19/94	11/19/94	12/15/94	11/19/94	11/19/94	11/19/94
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	25	11	<0.5	<0.5	13	17	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
Trichloroethene	15	<0.5	<0.5	<0.5	7.5	<0.5	<0.5
Vinyl chloride (Chloroethene)	7.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit

[e] = diluted sample

Table 6.4-27 Summary of Discrete Groundwater Sample Detections, Building 979, Follow-on RI (page 2 of 5)

Sample ID	979SB03	979SB04	979SB04	979SB04	979SB05	979SB05	979SB05
Sample Depth (ft bgs)	45.5	10.0	20.0	35.0	10.0	20.0	34.0
Sample Date	12/15/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<5[a]	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<5[a]	<0.5	<0.5
cis-1,2-Dichloroethene	<0.5	3.4	28	<0.5	87[a]	34	<0.5
trans-1,2-Dichloroethene	<0.5	0.7	1.8	<0.5	<5[a]	1.7	<0.5
Trichloroethene	<0.5	1.5	<0.5	<0.5	<5[a]	<0.5	<0.5
Vinyl chloride (Chloroethene)	<0.5	0.9	<0.5	<0.5	6.3[a]	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit

[a] = diluted sample

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Table 6.4-27 Summary of Discrete Groundwater Sample Detections, Building 979, Follow-on RI (page 3 of 5)

Sample ID	979SB06	979SB06	979SB07	979SB07	979SB08	979SB08	979SB08
Sample Depth (ft bgs)	10.0	20.0	13.0	20.0	12.0	16.5	25.5
Sample Date	11/29/94	11/29/94	11/30/94	11/30/94	11/29/94	11/29/94	11/29/94
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	1.4	1	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	<0.5	44	52	13	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	1.2	6	1.1	<0.5	<0.5	<0.5
Trichloroethene	<0.5	9.5	10	50	0.7	<0.5	<0.5
Vinyl chloride (Chloroethene)	<0.5	<0.5	41	2	<0.5	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit

[a] = diluted sample

Table 6.4-27 Summary of Discrete Groundwater Sample Detections, Building 979, Follow-on RI (page 4 of 5)

Sample ID	979SB09	979SB09	979SB11	979SB11	979SB12	979SB12	979SB12
Sample Depth (ft bgs)	13.0	20.0	11.5	20.5	11.0	27.5	47.5
Sample Date	12/01/94	12/01/94	01/10/95	01/11/95	12/16/94	12/19/94	12/19/94
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	5.1	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5
Vinyl chloride (Chloroethene)	<0.5	<0.5	<0.5	<0.5	5.7	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit

[a] = diluted sample

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Table 6.4-27 Summary of Discrete Groundwater Sample Detections, Building 979, Follow-on RI (page 5 of 5)

Sample ID	979SB13	979SB13	979SB13	979SB15	979SB16	979SB16
Sample Depth (ft bgs)	12.0	19.5	25.0	13.5	9.5	22.5
Sample Date	12/16/94	12/16/94	12/16/94	01/06/95	01/11/95	01/12/95
VOLATILE ORGANICS (µg/L)						
Trichloroethene And Breakdown Products						
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1.7
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
cis-1,2-Dichloroethene	11	23	0.7	<0.5	<0.5	44
trans-1,2-Dichloroethene	0.6	0.5	<0.5	<0.5	<0.5	16
Trichloroethene	<0.5	37	12	<0.5	<0.5	7.8
Vinyl chloride (Chloroethene)	14	9.1	<0.5	<0.5	<0.5	<0.5

µg/L = microgram per Liter

< = less than reporting limit

[a] = diluted sample

Table 6.5-1 Product Thickness, Building 937 Area

	Estimated Apparent Product Thickness (in)				
Site ID	May 1984[1]	June 1986[2]	November 1990	October 1991[3]	November 1991[3]
937GW02	36	33	11.9	17.04	13.92[4]
937GW03	6	<1	1.3	<3/8	<3/8[4]
937GW11	10	40	21.6	8.04	2.16[4]
UST-937FP01	NR	NR	<3/8	7.08	7.20

1 = USAEHA, 1984
2 = SEI, 1986
3 = RLSA, 1992
4 = measured after groundwater sampling
NR = not recorded

Table 7.4-1 Summary of Wipe Sample Detections, Building 283, DEH Study Area, Initial RI

Sample ID	283W01	283W02	283W03	283W04	283W05	283W06	283W07
Sample Date	11/27/90	11/27/90	11/27/90	12/05/90	12/06/90	12/06/90	12/06/90
INORGANICS ($\mu g/cm^2$)							
Aluminum	60	<10	23	8	6	1	5
Arsenic	<0.2	<0.2	<0.2	<0.004	0.005	<0.004	<0.004
Barium	1	<1	<1	0.7	0.3	0.02	0.1
Calcium	80	70	100	40	10	2	5
Chromium	<1	2	4	0.1	0.1	<0.02	0.03
Copper	3	1	2	0.6	0.5	0.06	0.04
Iron	100	10	30	20	30	3	7
Lead	3	4	70[a]	200[a]	60[a]	0.05	40[a]
Magnesium	50	40	60	3	4	0.6	3
Manganese	2	<0.5	0.5	0.2	0.2	0.04	0.1
Mercury	<0.02	<0.2	<0.02	0.001	<0.0003	<0.0003	<0.0003
Nickel	<0.1	<0.1	<0.1	0.03	0.05	<0.02	<0.02
Potassium	<60	400	400	3	2	<1	1
Sodium	80	600	700	8	4	0.5	9
Vanadium	<1	<1	<1	0.03	0.02	<0.02	0.02
Zinc	5	6	9	2	0.9	0.2	1
ORGANICS ($\mu g/cm^2$)							
Benzyl alcohol	<2	3	<2	<0.04	<0.04	<0.04	<0.04
Bis (2-ethylhexyl) phthalate	2	20	1	0.09	0.03	0.03	0.04
2,4-Dimethylphenol	<1	20	<1	<0.02	<0.02	<0.02	<0.02
Dimethyl phthalate	<1	<0.8	<1	0.1	0.02	0.02	0.02
Di-n-butyl phthalate	<1	<1	<1	<0.02	<0.02	<0.02	0.03
Di-n-octyl phthalate	<1	2	<1	<0.02	<0.02	<0.02	<0.02
2-Methylphenol/ 2-Cresol	<2	20	<2	<0.04	<0.04	<0.04	<0.04
4-Methylphenol/ 4-Cresol	<2	60	<2	<0.04	<0.04	<0.04	<0.04
POLYCHLORINATED BIPHENYLS							
No detections above certified reporting limit							

< = less than certified reporting limit
$\mu g/cm^2$ = micrograms per square centimeter
[a] = diluted sample

Table 7.4-2 Summary of Sediment Sample Detections, DEH Study Area, Initial RI

Sample ID Sample Date	268SD01 11/15/90	268SD02 11/15/90	268SD03 11/15/90	268SD04 11/15/90	268SD05 11/15/90	268SD06 11/16/90	283SD01 11/16/90	283SD02 11/16/90	283SD03 11/16/90	285SD01 12/06/90
INORGANICS (µg/g)										
Aluminum	12,700	10,800	7,630	9,800	9,920	11,300	12,800	10,600	11,700	10,600
Barium	60.0	69.6	30.1	83.8	89.7	91.1	230	219	124	578
Cadmium	<1.20	<1.20	<1.20	<1.20	<1.20	2.02	2.40	<1.20	4.05	2.92
Calcium	21,300	19,600	7,020	12,800	10,800	8,080	13,800	41,100	7,170	14,400
Chromium	32.8	53.6	41.5	62.1	66.0	109	63.7	59.6	172	136
Cobalt	8.18	9.68	7.04	8.19	7.62	9.47	10.1	9.29	6.83	28.9
Copper	28.2	36.4	14.8	86.7	68.9	112	1,060	66.4	417	192
Cyanide	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	0.469	4.57
Iron	21,200	23,100	15,900	21,400	19,800	21,900	33,100	19,600	21,000	31,000
Lead	33.4	69.1	21.4	151	168	383	230	121	382	1,110
Magnesium	6,550	9,280	5,110	5,610	5,080	5,330	6,580	7,650	4,930	5,280
Manganese	291	261	194	319	225	344	571	330	181	432
Mercury	0.087	0.085	<0.050	<0.050	0.226	0.544	0.233	0.231	0.220	2.3[a]
Nickel	28.5	38.5	30.9	33.4	28.1	36.5	45.7	37.3	33.5	35.6
Potassium	1,000	1,130	883	1,050	1,260	1,470	1,580	1,420	1,790	1,220
Sodium	<38.7	396	469	365	1,460	380	689	3,700	573	333
Vanadium	36.1	40.6	30.1	36.8	34.7	42.7	52.3	42.4	48.1	34.5
Zinc	114	129	54.8	218	217	491	615	256	762	1,020
VOLATILE ORGANICS (µg/g)										
Benzene	NA	NA	NA	NA	NA	NA	<0.10	<0.10	0.24	<0.10
1,2-Dichloroethene*	NA	NA	NA	NA	NA	NA	<0.32	<0.32	1.1	<0.32
1,3-Dimethylbenzene/ m-Xylene	NA	NA	NA	NA	NA	NA	<0.23	<0.23	GT 10	<0.23
Ethylbenzene	NA	NA	NA	NA	NA	NA	<0.19	<0.19	12	<0.19
Toluene	NA	NA	NA	NA	NA	NA	<0.10	<0.10	5.5	<0.10
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	<0.20	<0.20	2.0	<0.20
Xylene	NA	NA	NA	NA	NA	NA	<0.78	<0.78	GT 20	<0.78
SEMIVOLATILE ORGANICS (µg/g)										
Benzo(a)anthracene	<0.041	<0.041	<0.041	0.58	<0.041	<0.21[a]	<0.21[a]	<0.041	<0.21[a]	<0.041
Bis(2-ethylhexyl)phthalate	5.7	<0.48	2.8	1.6	5.6	20[a]	<2.4[a]	1.9	<2.4[a]	4.7
Chrysene	<0.032	<0.032	<0.032	0.68	<0.032	<0.16[a]	<0.16[a]	<0.032	<0.16[a]	<0.032
Di-n-butyl phthalate	<1.3	<1.3	<1.3	<1.3	<1.3	20[a]	<6.5[a]	<1.3	<6.5[a]	<1.30
Fluoranthene	<0.032	<0.032	<0.032	1.5	<0.032	<0.16[a]	<0.16[a]	<0.032	<0.16[a]	<0.032
2-Methylnapthalene	1.8	0.11	<0.032	<0.032	<0.032	<0.16[a]	<0.16[a]	<0.032	2[a]	<0.032
Phenanthrene	0.62	<0.032	<0.032	1.3	<0.032	<0.16[a]	2[a]	<0.032	<0.16[a]	<0.032
Pyrene	<0.083	<0.083	<0.083	0.86	<0.083	<0.42[a]	<0.42[a]	<0.083	<0.42[a]	<0.083
POLYCHLORINATED BIPHENYLS No detections above certified reporting limit										
TOTAL PETROLEUM HYDROCARBONS (µg/g)	NA	NA	NA	NA	NA	NA	2,000[a]	1,300	40,000[a]	3,000[a]

µg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
NA = not analyzed
[a] = diluted sample
* = analysis done for total 1,2-Dichloroethane

Table 7.4-3 Summary of Sediment Sample Detections, Building 286, Follow-on RI (page 1 of 1)

Sample ID	286SE01
Sample Depth (ft bgs)	0.0
Sample Date	12/05/94
INORGANICS (µg/g)	
Aluminum	4260
Arsenic	3.62[a]
Barium	23.4
Beryllium	0.201
Calcium	2090
Chromium	25.3
Cobalt	5.91
Copper	19.5
Iron	8130
Lead	28.6
Magnesium	3360
Manganese	154
Nickel	24.2
Potassium	443
Sodium	101[n]
Vanadium	17.4
Zinc	137[n]
VOLATILE ORGANICS (µg/g)	
No detections above reporting limit	
SEMIVOLATILE ORGANICS (µg/g)	
Bis(2-ethylhexyl) phthalate	0.445[f]
TOTAL PETROLEUM HYDROCARBONS (µg/g)	
TPH-diesel fraction	
No detections above reporting limit	
TPH-gas fraction	
No detections above reporting limit	

µg/L = microgram per Liter
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value

Table 7.4-4 Summary of Surface Soil Sample Detections, Buildings 268 and 283, DEH Study Area, Initial RI

Sample ID	268SS01	268SS02	268SS03	283SS01
Sample Date	11/15/90	11/15/90	11/15/90	11/16/90
INORGANICS (µg/g)				
Aluminum	8,930	8,470	7,830	11,800
Arsenic	<2.50	3.59	3.28	3.52
Barium	49.1	76.7	78.8	307
Beryllium	<0.427	<0.427	<0.427	<0.427
Cadmium	<1.20	<1.20	<1.20	4.47
Calcium	11,300	4,700	7,390	6,300
Chromium	50.0	75.6	73.9	93.5
Cobalt	7.16	8.48	7.67	11.1
Copper	177	26.9	27.3	60.6
Cyanide	<0.250	<0.250	<0.250	0.349
Iron	21,400	20,000	18,900	27,400
Lead	60.1	350	167	1,000[a]
Magnesium	4,910	4,360	5,810	4,660
Manganese	216	332	208	362
Mercury	<0.050	0.093	<0.050	0.859
Nickel	28.2	32.2	30.9	49.2
Potassium	821	1,070	1,380	1,210
Silver	6.42	1.11	<0.803	<0.803
Sodium	442	200	416	237
Vanadium	35.9	34.7	28.1	48.6
Zinc	104	594	372	2,000[a]
VOLATILE ORGANICS (µg/g)				
Toluene	<0.10	<0.10	0.29	<0.10
SEMIVOLATILE ORGANICS (µg/g)				
Bis(2-ethylhexyl) phthalate	<0.48	1.8	<0.48	7[a]
Chlordane*	<0.68	GT 12	<0.68	<3.4[a]
Chrysene	<0.032	0.18	<0.032	<0.16[a]
ppDDD	<0.064	0.61(c)	<0.064	2[a](c)
Dieldrin	<0.079	2.4(c)	<0.079	<0.40[a]
Fluoranthene	0.17	0.24	<0.032	0.4
Lindane	<0.10	0.98(c)	<0.10	<0.50[a]
Phenanthrene	<0.032	0.22	<0.032	0.7[a]
Pyrene	<0.083	0.24	<0.083	<0.42[a]
POLYCHLORINATED BIPHENYLS				
No detections above certified reporting limit				

µg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
* = not on target analyte list; additional information supplied by lab
a = diluted sample
(c) = confirmed pesticide detection

Table 7.4-5 Summary of Soil Sample Detections, Buildings 268 and 283, DEH Study Area, Initial RI (page 1 of 2)

Sample ID	268SO01	268SO02	268SO03	268SO04	268SO05	268SO06	268SO07
Sample Depth (ft bgs)	0.0	3.0	2.5	3.5	3.5	3.5	3.5
Sample Date	12/14/90	12/11/90	12/12/90	12/12/90	12/12/90	12/12/90	12/12/90
INORGANICS (µg/g)							
Aluminum	7,170	17,800	7,220	7,450	10,300	7,730	6,790
Arsenic	4.05	4.57	2.58	2.61	2.51	<2.50	2.94
Barium	39.8	161	51.9	23.2	59.7	37.5	43.8
Beryllium	<0.427	<0.427	<0.427	<0.427	<0.427	<0.427	<0.427
Cadmium	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
Calcium	4,500	7,840	6,920	8,710	6,820	8,880	9,800
Chromium	35.6	49.2	163	275	142	189	143
Cobalt	6.24	14.9	11.9	9.43	9.97	9.27	9.45
Copper	13.6	40.6	8.32	7.22	24.1	8.43	7.30
Cyanide	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Iron	16,500	32,200	19,600	18,500	21,100	18,100	18,300
Lead	135	44.6	178	27.1	37.4	15.9	113
Magnesium	4,320	8,750	14,200	9,060	7,030	9,930	8,470
Manganese	221	432	228	211	346	200	233
Mercury	0.072	0.107	<0.050	<0.050	<0.050	<0.050	0.057
Nickel	32.0	50.6	93.2	62.8	51.6	69.7	56.6
Potassium	893	2,630	768	611	1,240	657	695
Silver	<0.803	<0.803	<0.803	<0.803	<0.803	<0.803	<0.803
Sodium	187	142	200	201	267	260	205
Vanadium	27.5	39.8	32.8	32.6	36.4	31.3	32.3
Zinc	397	92.6	187	37.0	36.8	26.8	129
VOLATILE ORGANICS							
No detections above certified reporting limit							
SEMIVOLATILE ORGANICS (µg/g)							
Acenaphthene	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Benzo[a]anthracene	0.076	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Bis(2-ethylhexyl)phthalate	1.4	<0.48	1.5	0.96	0.91	<0.48	1.5
Chrysene	0.10	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
1,2-Dichlorobenzene	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042
2,4-Dichlorophenol	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065
Dimethyl phthalate	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063
Fluoranthene	0.12	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Fluorene	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065
2-Methylnaphthalene	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Phenanthrene	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Pyrene	<0.083	0.22	<0.083	<0.083	<0.083	<0.083	<0.083
POLYCHLORINATED BIPHENYLS							
No detections above certified reporting limit							

µg/g = micrograms per gram < = less than certified reporting limit NA = Not analyzed * Only cyanide analyzed

Table 7.4-5 Summary of Soil Sample Detections, Buildings 268 and 283, DEH Study Area, Initial RI (page 2 of 2)

Sample ID	268SO08		268SO09A	268SO09B	283SO01A	283SO01B	283SO02A	283SO02B
Sample Depth (ft bgs)	3.0	0.0	6.5	9.5	1.0	5.0	0.5	5.0
Sample Date	10/30/90	02/08/91*	10/29/90	10/29/90	12/10/90	12/10/90	12/11/90	12/11/90
INORGANICS (µg/g)								
Aluminum	17,900	NA	13,000	13,100	23,100	7,200	20,200	6,920
Arsenic	3.21	NA	21.6	3.92	<2.50	2.83	3.23	<2.50
Barium	154	NA	381	364	160	25.3	177	18.9
Beryllium	0.663	NA	0.806	0.939	<0.427	<0.427	0.604	<0.427
Cadmium	<1.20	NA	<1.20	<1.20	<1.20	<1.20	<1.20	1.68
Calcium	4,980	NA	30,100	37,400	8,860	4,040	4,850	4,210
Chromium	49.5	NA	64.0	347	72.3	64.2	78.7	59.5
Cobalt	12.6	NA	11.5	11.1	17.9	6.76	22.5	6.81
Copper	34.9	NA	330	455	52.2	5.47	62.7	4.81
Cyanide	<0.250+	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Iron	30,800	NA	51,300	58,500	36,800	14,900	38,600	15,100
Lead	206	NA	713	599	28.7	<7.44	65.9	<7.44
Magnesium	8,240	NA	4,970	12,800	5,180	4,550	4,490	4,790
Manganese	459	NA	431	395	1,560	201	1,890	178
Mercury	0.067	NA	0.414	0.186	<0.050	<0.050	0.093	<0.050
Nickel	60.2	NA	57.9	91.8	49.6	31.1	49.8	34.4
Potassium	1,560	NA	2,030	1,550	2,490	809	1,760	752
Silver	<0.803	NA	<0.803	<0.803	4.90	<0.803	1.35	<0.803
Sodium	185	NA	564	704	209	146	182	167
Vanadium	51.4	NA	43.0	44.4	67.7	25.7	70.8	26.1
Zinc	240	NA	653	460	85.3	18.5	164	18.9
VOLATILE ORGANICS								
No detections above certified reporting limit								
SEMIVOLATILE ORGANICS (µg/g)								
Acenaphthene	<0.041	NA	<0.041	<0.041	0.38	<0.041	<0.041	<0.041
Benzo[a]anthracene	<0.041	NA	<0.041	<0.041	1.12	<0.041	<0.041	<0.041
Bis(2-ethylhexyl)phthalate	<0.48	NA	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
Chrysene	<0.032	NA	0.073	0.10	0.85	<0.032	<0.032	<0.032
1,2-Dichlorobenzene	<0.042	NA	<0.042	<0.042	0.28	<0.042	<0.042	<0.042
2,4-Dichlorophenol	<0.065	NA	<0.065	<0.065	0.39	<0.065	<0.065	<0.065
Dimethyl phthalate	<0.063	NA	<0.063	<0.063	0.12	<0.063	<0.063	<0.063
Fluoranthene	<0.032	NA	0.20	0.17	0.25	<0.032	<0.032	<0.032
Fluorene	<0.065	NA	<0.065	<0.065	0.45	<0.065	<0.065	<0.065
2-Methylnaphthalene	<0.032	NA	<0.032	<0.032	0.39	<0.032	<0.032	<0.032
Phenanthrene	<0.032	NA	0.29	0.17	0.078	<0.032	<0.032	<0.032
Pyrene	<0.083	NA	<0.083	<0.083	0.59	<0.083	<0.083	<0.083
POLYCHLORINATED BIPHENYLS								
No detections above certified reporting limit								

µg/g = micrograms per gram
NA = not analyzed
\+ = exceeded hold time
< = less than certified reporting limit
* Only cyanide analyzed

Table 7.4-6 Summary of Soil Sample Detections, Building 269, DEH Study Area, Initial RI

Sample ID	269SO01A	269SO01B	269SO02A	269SO03A	269SO03B	269SO04A	269SO04B
Sample Depth (ft bgs)	1.5	4.0	2.0	1.5	4.5	1.0	4.5
Sample Date	11/30/90	11/30/90	11/30/90	11/30/90	11/30/90	11/30/90	11/30/90
VOLATILE ORGANICS (μg/g)							
Methylethyl ketone/ 2-butanone	<4.3	<4.3	<4.3	7.3	<4.3	6.4	6.4
1,1,1-Trichloroethane	<0.20	<0.20	<0.20	0.37	<0.20	<0.20	<0.20
SEMIVOLATILE ORGANICS							
No detections above certified reporting limit							
PESTICIDES (μg/g)							
ppDDT	<0.004	<0.004	0.004(c)	<0.004	<0.004	<0.004	<0.004

μg/g = micrograms per gram
< = less than certified reporting limit
(c) = confirmed sample

Table 7.4-7 Summary of Surface Soil Sample Detections, Building 293, DEH Study Area, Initial RI

Sample ID	293SS01	293SS02	293SS03
Sample Date	11/17/90	11/17/90	11/17/90
PESTICIDES (μg/g)			
Aldrin	0.031(c)	0.029[a](c)	0.28[a](c)
alpha-Benzenehexachloride/ alpha-hexachlorocyclohexane	<0.003	0.038[a](c)	<0.003
delta-Benzenehexachloride	<0.008	0.11[a](c)	<0.008
Chlordane	57[a](c)	47[a](c)	GT 80[a](c)
ppDDD	0.34[a](c)	0.32[a](c)	GT 1.0[a](c)
ppDDT	1.7[a](c)	1.2[a](c)	5.4[a](c)
Dieldrin	0.94[a](c)	0.42[a](c)	0.19[a](c)
alpha-Endosulfan/Endosulfan I	0.41[a](c)	0.35[a](c)	0.53[a](c)
Endrin	3.2[a](c)	2.5[a](c)	4.6[a](c)
Heptachlor	0.20[a](c)	0.51[a](c)	0.77[a](c)
Heptachlor epoxide	<0.001	<0.001	0.20[a](c)
Lindane	0.035(c)	0.17[a](c)	0.14[a](c)
Methoxychlor	<0.036	0.061(c)	0.064(c)
POLYCHLORINATED BIPHENYLS			
No detections above certified reporting limit			

μg/g = micrograms per gram
< = less than certified reporting limit
GT = greater than upper certified reporting limit
[a] = diluted sample
(c) = confirmed pesticide detection

Table 7.4-8 Summary of Soil Boring Sample Detections, DEH Study Area, Supplemental RI (page 1 of 2)

Sample ID	DEHGW02	DEHGW02	DEHGW04	DEHGW04	DEHSB01	DEHSB01
Sample Depth (ft bgs)	2.0	5.0	2.0	4.0	3.0	5.0
Sample Date	08/24/92	08/24/92	08/10/92	08/10/92	08/07/92	08/07/92
INORGANICS (μg/g)						
Aluminum	9600.000[a]	6310.000	8300.000[a]	11000.000	4020.000	4120.000
Antimony	<41.300	<41.300	166.000	125.000	<41.300	<41.300
Arsenic	2.790	4.200	1.440	9.380	3.520[f]	3.520[f]
Barium	41.300	28.700	42.200	142.000	14.700[f]	10.900[f]
Beryllium	<0.500	<0.500	0.730	<0.500	<0.500	<0.500
Cadmium	<0.515	<0.515	2.660	1.610	<0.515	<0.515
Calcium	12000.000[a]	5730.000	3650.000	39000.000[a]	2740.000	2890.000
Chromium	61.400	86.900	1040.000	689.000	62.500[f]	44.700[f]
Cobalt	13.100	10.100	109.000	81.000	16.100[f]	15.000[f]
Copper	23.100	24.000	50.400	55.500	10.400[f]	11.100[f]
Iron	26000.000[a]	17000.000[a]	42000.000[a]	43000.000[a]	11000.000[a]	16000.000[a]
Lead	18.000[a]	23.000[a]	88.000[a]	170.000[a]	6.330	7.010
Magnesium	6400.000[a]	8310.000[f]	180000.000[a]	GT 100000.000[a]	4510.000[f]	3740.000
Manganese	456.000	214.000[f]	669.000	641.000	139.000[f]	99.600
Mercury	<0.027	<0.027	0.072	0.186	<0.027	<0.027
Nickel	45.900	77.800	1520.000	884.000	49.800	40.200
Potassium	916.000	1010.000	257.000	842.000	426.000	474.000
Selenium	0.611	0.751	2.090	1.100[a]	<0.250	<0.250
Silver	<0.521	<0.521	<0.521	0.925	<0.521	<0.521
Sodium	356.000[k]	718.000[k]	327.000[k]	1030.000[k]	129.000[k]	153.000[k]
Thallium	23.500[k]	<14.700[k]	183.000[k]	190.000[k]	45.600[k]	37.200[k]
Vanadium	72.300	37.100	44.300	42.600	24.200[f]	23.200[f]
Zinc	52.200	42.000	90.400	186.000	22.800[f]	24.500[f]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 7.4-8 Summary of Soil Boring Sample Detections, DEH Study Area, Supplemental RI (page 2 of 2)

Sample ID	DEHGW02	DEHGW02	DEHGW04	DEHGW04	DEHSB01	DEH
Sample Depth (ft bgs)	2.0	5.0	2.0	4.0	3.0	5.0
Sample Date	08/24/92	08/24/92	08/10/92	08/10/92	08/07/92	08/07/92
VOLATILE ORGANICS (μg/g)						
No detections above certified reporting limit						
SEMIVOLATILE ORGANICS (μg/g)						
Benzo(a)anthracene	<0.033	<0.033	0.092	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	0.110	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	0.079	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	0.110	<0.033	<0.033	<0.033
Di-n-butylphthalate	<0.920	<0.920	1.600	<0.920	<0.920	<0.920
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	0.044	<0.033	<0.033	<0.033
Pyrene	0.150	<0.033	0.096	<0.033	<0.033	<0.033
ORGANOCHLORINE PESTICIDES						
No detections above method detection limit						
POLYCHLORINATED BIPHENYLS						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	25.000	18.000	8.000	3.000	21.000	1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 7.4-9 Summary of Soil Boring Sample Detections, Building 268, Follow-on RI (page 1 of 2)

Sample ID	268SB01	268SB01	268SB02	268SB02	268SB03	268SB03	268SB04
Sample Depth (ft bgs)	0.5	1.5	0.0	1.5	0.0	1.5	1.5
Sample Date	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94	04/07/95
ORGANOCHLORINE PESTICIDES (µg/g)							
Aldrin	<0.0072	0.0189	<0.0074	0.0181	<0.0072	<0.0066	<0.0055
Chlordane	0.0144	1	0.0173	5.88	1.55	0.0265	0.11
delta-BHC	<0.0054	0.00803	<0.0046	0.00701	<0.0054	<0.0047	<0.0055
Dieldrin	0.00899	0.213	<0.0065	0.0904	0.144	<0.0057	<0.0055
Endrin	<0.0063	0.00897	<0.0065	<0.0062	<0.0063	<0.0057	<0.0055
Heptachlor	<0.0063	<0.0059	<0.0065	<0.0062	0.0144	<0.0057	<0.0055
Heptachlor epoxide	<0.0063	<0.0059	<0.0065	<0.0062	<0.0063	<0.0057	<0.0055
ppDDE	<0.0072	0.00897	<0.0074	0.00802	<0.0072	<0.0066	<0.0055
ppDDT	<0.0072	<0.0068	<0.0074	0.011	0.0699	<0.0066	<0.0055

µg/g = microgram per gram

< = less than reporting limit

Table 7.4-9 Summary of Soil Boring Sample Detections, Building 268, Follow-on RI (page 2 of 2)

Sample ID	268SB04	268SB05	268SB05	268SB06	268SB06	268SB06
Sample Depth (ft bgs)	3.0	1.5	3.0	0.5	1.5	3.0
Sample Date	04/07/95	04/07/95	04/07/95	04/07/95	04/07/95	04/07/95
ORGANOCHLORINE PESTICIDES (µg/g)						
Aldrin	<0.005	<0.005	0.008	0.062	<0.0055	<0.005
Chlordane	0.11	0.69	0.9	4.5	0.0495	0.067
delta-BHC	<0.005	<0.005	<0.005	<0.005	<0.0055	<0.005
Dieldrin	0.006	0.028	0.016	<0.005	<0.0055	<0.005
Endrin	<0.005	<0.005	<0.005	<0.005	<0.0055	<0.005
Heptachlor	<0.005	<0.005	<0.005	0.31	<0.0055	<0.005
Heptachlor epoxide	<0.005	<0.005	<0.005	0.012	<0.0055	<0.005
ppDDE	<0.005	<0.005	<0.005	<0.005	<0.0055	<0.005
ppDDT	0.007	0.011	0.02	0.026	<0.0055	<0.005

µg/g = microgram per gram

< = less than reporting limit

Table 7.4-10 Summary of Soil Boring Sample Detections, Building 269, Follow-on RI (page 1 of 1)

Sample ID	269SB01	269SB01
Sample Depth (ft bgs)	0.5	2.5
Sample Date	11/19/94	11/19/94
INORGANICS (µg/g)		
Aluminum	5350	4980
Arsenic	3.64 [an]	3.01 [an]
Barium	34.4	15.4
Beryllium	0.163	0.194
Calcium	4510	4300
Chromium	78.9	105
Cobalt	12.3	15.8
Copper	29.2	14.2
Cyanide	<0.250	0.365
Iron	12300	17700
Lead	17.8	17.3
Magnesium	6590	10500
Manganese	205	174
Nickel	52.6	80.8
Potassium	361	313
Selenium	1.52 [a]	0.532 [a]
Sodium	69.2	73.1
Vanadium	27.1	44.7
Zinc	33.4	32.2
ORGANOCHLORINE PESTICIDES (µg/g)		
No detections above reporting limit		
CHLORINATED HERBICIDES (µg/g)		
No detections above reporting limit		

µg/g = microgram per gram
< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 7.4-11 Summary of Soil Boring Sample Detections Associated with Boring 268SO09, Building 286, Follow-on RI (page 1 of 1)

Sample ID	286SB01	286SB02	286SB03	286SB04	286SB09	286SB12
Sample Depth (ft bgs)	3.0	5.0	5.0	5.0	5.0	9.0
Sample Date	11/30/94	11/30/94	11/30/94	11/30/94	01/04/95	01/05/95
INORGANICS (µg/g)						
Lead-XRF	1100	<25	<25	1100	45.2	<25
Lead	NA	NA	NA	550	NA	1.95

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 7.4-12 Summary of Soil Boring Sample Detections, Building 286, Follow-on RI (page 1 of 4)

Sample ID	286SB05	286SB05	286SB06	286SB06	286SB07	286SB07	286SB08
Sample Depth (ft bgs)	0.5	5.0	0.5	5.0	0.5	5.0	0.5
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94
INORGANICS (µg/g)							
Aluminum	9140	16500	11300	3200	16600	3850	5970
Antimony	<0.400 [ap]	<0.400 [ap]	0.129[a]	<0.400 [ap]	0.214[a]	<0.400 [ap]	<0.400 [ap]
Arsenic	0.802	<1.25[a]	0.637	3.16[a]	3.21[a]	3.94[a]	<0.500[a]
Barium	164	316	299	7.87	319	9.13	329
Beryllium	0.625	1.19	0.743	0.135	1.20	0.149	0.563
Calcium	220	1020	794	1680	1030	1720	357
Chromium	11.4	11.1	13.2	26.6	11.2	35.3	14.3
Cobalt	11.9	18.2	12.3	4.43	18.3	5.88	10.4
Copper	101	381	146	11.3	384	13.0	86.5
Cyanide	<0.250	<0.250	<0.250	0.336[f]	<0.250	<0.250	<0.250
Iron	19200	4060	19400	6420	29000	8240	20600
Lead	8.31	39.0	10.4	1.60	15.0	2.25	13.3
Magnesium	759	3170	1070	2440	3200	4570	982
Manganese	1390	3860	1670	86.6	3900	116	4650
Nickel	13.4	50.3	17.2	21.1	50.7	36.5	17.4
Potassium	906	975	1330	349	983	414	1400
Silver	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.509
Sodium	139	46.0	102	68.7	<50.0	87.0	75.2
Vanadium	27.8	32.3	26.7	14.2	32.5	16.2	31.2
Zinc	24.0	78.0	38.2	18.6	78.7	27.5	51.2
VOLATILE ORGANICS (µg/g)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 7.4-12 Summary of Soil Boring Sample Detections, Building 286, Follow-on RI (page 2 of 4)

Sample ID	286SB05	286SB05	286SB06	286SB06	286SB07	286SB07	286SB08
Sample Depth (ft bgs)	0.5	5.0	0.5	5.0	0.5	5.0	0.5
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94
SEMIVOLATILE ORGANICS (µg/g)							
9H-Carbazole	2.21	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Bis(2-ethylhexyl) phthalate	0.153	0.0817	0.172	0.197	0.209	0.128	0.132
Di-n-butylphthalate	0.0756	0.0743	0.0688	<0.0625	0.0728	0.0867	0.0919
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	<3.12	<3.12	<3.12	<3.12	23.6	<3.12	<3.12
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 7.4-12 Summary of Soil Boring Sample Detections, Building 286, Follow-on RI (page 3 of 4)

Sample ID	286SB08
Sample Depth (ft bgs)	5.0
Sample Date	12/01/94
INORGANICS (µg/g)	
Aluminum	4360
Antimony	<0.400 ap
Arsenic	1.72[a]
Barium	14.9
Beryllium	0.176
Calcium	4680
Chromium	125
Cobalt	7.67
Copper	20.1
Cyanide	<0.250
Iron	9490
Lead	8.09
Magnesium	6350
Manganese	132
Nickel	47.8
Potassium	319
Silver	<0.500
Sodium	85.6
Vanadium	20.1
Zinc	28.4
VOLATILE ORGANICS (µg/g)	
No detections above reporting limit	

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 7.4-12 Summary of Soil Boring Sample Detections, Building 286, Follow-on RI (page 4 of 4)

Sample ID	286SB08
Sample Depth (ft bgs)	5.0
Sample Date	12/01/94
SEMIVOLATILE ORGANICS (µg/g)	
9H-Carbazole	<0.330
Bis(2-ethylhexyl) phthalate	0.348
Di-n-butylphthalate	0.687
TOTAL PETROLEUM HYDROCARBONS (µg/g)	
TPH-diesel fraction	<3.12
TPH-gas fraction	
No detections above reporting limit	

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 7.4-13 Summary of Soil Boring Sample Detections, Building 293, Follow-on RI (page 1 of 2)

Sample ID	293SB01	293SB01	293SB02	293SB02	293SB03	293SB03	293SB04
Sample Depth (ft bgs)	2.5	4.5	2.0	4.0	2.0	4.0	2.0
Sample Date	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94
INORGANICS (µg/g)							
Arsenic	1.41	1.72	1.11	1.11	0.708	1.72	2.83
ORGANOCHLORINE PESTICIDES (µg/g)							
Chlordane	<0.01	<0.012	<0.01	<0.01	0.105	<0.011	<0.012

µg/g = microgram per gram

< = less than reporting limit

Table 7.4-13 Summary of Soil Boring Sample Detections, Building 293, Follow-on RI (page 2 of 2)

Sample ID	293SB04
Sample Depth (ft bgs)	4.0
Sample Date	11/15/94
INORGANICS (µg/g)	
Arsenic	1.52
ORGANOCHLORINE PESTICIDES (µg/g)	
Chlordane	<0.013

µg/g = microgram per gram

< = less than reporting limit

Table 7.4-14 Summary of Soil Boring Sample Detections, Total Organic Carbon Analysis, DEH Study Area, Follow-on RI
(page 1 of 1)

Sample ID	DEHSB02	DEHSB02	DEHSB02
Sample Depth (ft bgs)	5.5	21.0	32.0
Sample Date	11/17/94	11/17/94	11/17/94
MISCELLANEOUS PARAMETERS (µg/g)			
Total Organic Carbon	542	5150	306

µg/g = microgram per gram

Table 7.4-15 Summary of Soil Boring Sample Detections, Building 267, Follow-on RI (page 1 of 1)

Sample ID	267SB01	267SB01
Sample Depth (ft bgs)	0.5	3.0
Sample Date	11/15/94	11/15/94

INORGANICS (µg/g)

Lead

No detections above reporting limit

TOTAL PETROLEUM HYDROCARBONS (µg/g)

TPH (immunoassay)

No detections above reporting limit

µg/g = microgram per gram

Table 7.4-16 Summary of Soil Boring Sample Detections, Building 287, Follow-on RI (page 1 of 1)

Sample ID	287SB01	287SB01
Sample Depth (ft bgs)	0.5	5.0
Sample Date	11/30/94	11/30/94

TOTAL PETROLEUM HYDROCARBONS (µg/g)

TPH (immunoassay)

No detections above reporting limit

µg/g = microgram per gram

Table 7.4-17 Summary of Groundwater Sample Detections, DEH Study Area, Supplemental RI
(page 1 of 2)

Sample ID	DEHGW01	DEHGW02	DEHGW03	DEHGW04
Sample Date	08/27/92	09/09/92	08/27/92	08/27/92
INORGANICS (μg/L)				
Arsenic	3.620	7.570	4.480	5.330
Barium	8.990	16.200	32.900	58.000
Cadmium	65.000	<4.010	<4.010	<4.010
Calcium	86300.000	45900.000	57300.000	90200.000
Iron	162.000	<38.800	64.800	<38.800
Lead	8.680	<1.260	1.630	7.380
Nickel	<34.3	19.000[d]	<34.3	<34.3
Magnesium	14300.000	72000.000	42900.000	37600.000
Manganese	54.400	297.000	4.140	<2.750
Potassium	5370.000	32300.000	27200.000	19100.000
Selenium	15.500	<3.020	<3.020	<3.020
Sodium	38400.000	650000.000[a]	373000.000	329000.000
Vanadium	<11.000	12.600	<11.000	<11.000
MISCELLANEOUS PARAMETERS (μg/L)				
Alkalinity				
Total	199000.000	253000.000	367000.000	376000.000
Bicarbonate	163000.000	249000.000	301000.000	308000.000
Carbonate	<2500.000	3460.000	3730.000	4590.000
Hydroxide	69.000	74.000	66.000	79.000
Chloride	60000.000[a]	1000000.000[a]	500000.000[a]	500000.000[a]
Nitrate	4700.000[a]	86.600	2300.000[a]	1600.000[a]
Sulfate	69700.000	160000.000[a]	130000.000[a]	120000.000[a]
TDS	483000.000	2300000.000	1400000.000	1350000.000
VOLATILE ORGANICS (μg/L)				
c-1,2-Dichloroethene	<0.160	1.000	<0.160	<0.160
Trichloroethene	<2.200	14.000	<2.200	<2.200

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit

Table 7.4-17 Summary of Groundwater Sample Detections, DEH Study Area, Supplemental RI
(page 2 of 2)

Sample ID Sample Date	DEHGW01 08/27/92	DEHGW02 09/09/92	DEHGW03 08/27/92	DEHGW04 08/27/92
SEMIVOLATILE ORGANICS				
No detections above certified reporting limit				
ORGANOCHLORINE PESTICIDES[c] (μg/L)				
Dieldrin	0.040[d]	<0.100	<0.100	<0.100
POLYCHLORINATED BIPHENYLS				
No detections above certified reporting limit				
CHLORINATED HERBICIDES				
No detections above method detection limit				
TOTAL PETROLEUM HYDROCARBONS (μg/L)				
TPH-diesel fraction	<50.000	<50.000	70.000	<50.000
TPH-gas fraction	<50.000	<50.000	<50.000	<50.000

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit

Table 7.4-18 Summary of Filtered and Unfiltered Metal Detections in Groundwater, DEH Study Area, Supplemental RI

Sample ID Sample Date	DEHGW01 08/27/92 FILTERED	DEHGW01 08/27/92 UNFILTERED	DEHGW04 08/27/92 FILTERED	DEHGW04 08/27/92 UNFILTERED
INORGANICS (μg/L)				
Aluminum	< 141.000	< 141.000	< 141.000	2040.000
Arsenic	3.620	3.730	5.330	5.220
Barium	8.990	9.540	58.000	79.600
Cadmium	65.000	< 4.010	< 4.010	< 4.010
Calcium	86300.000	88400.000	90200.000	98500.000
Chromium	< 6.020	< 6.020	< 6.020	25.700
Iron	162.000	< 38.800	< 38.800	3530.000
Lead	8.680	3.040	7.380	34.300
Magnesium	14300.000	14500.000	37600.000	43100.000
Manganese	54.400	46.600	< 2.750	99.700
Nickel	< 34.300	< 34.300	< 34.300	48.600
Potassium	5370.000	5620.000	19100.000	20000.000
Selenium	15.500	< 3.020	< 3.020	< 3.020
Sodium	38400.000	38600.000	329000.000	335000.000
Vanadium	< 11.000	< 11.000	< 11.000	17.600
Zinc	< 21.100	< 21.100	< 21.100	24.100

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit

Table 7.4-19 Summary of Groundwater Sample Detections, DEH Study Area, Follow-on RI (page 1 of 6)

Sample ID	DEHGW01	DEHGW01	DEHGW02	DEHGW02	DEHGW03	DEHGW03	DEHGW04
Sample Depth (ft bgs)	5.0	8.0	5.0	10.0	6.0	10.0	4.5
Sample Date	01/11/95	11/10/94	01/11/95	11/07/94	01/11/95	11/10/94	01/11/95
INORGANICS (µg/L)							
Aluminum	NA	537	NA	531	NA	10400	NA
Aluminum (F)	NA	<25.0	NA	<25.0	NA	117	NA
Antimony	NA	<1.11	NA	<1.11	NA	2.84[f]	NA
Antimony (F)	NA	14.5	NA	6.50	NA	16.7	NA
Arsenic	NA	2.52	NA	5.88[n]	NA	6.20	NA
Arsenic (F)	NA	1.90	NA	2.60[n]	NA	3.50	NA
Barium	NA	21.0	NA	35.0	NA	165	NA
Barium (F)	NA	11.0	NA	25.0	NA	38.0	NA
Beryllium	NA	1.00[f]	NA	<1.00	NA	2.00[f]	NA
Beryllium (F)	NA	<1.00	NA	1.00	NA	<1.00	NA
Cadmium	NA	8.00[f]	NA	<3.00	NA	86.0	NA
Calcium	NA	83400	NA	103000	NA	15900	NA
Calcium (F)	NA	89100	NA	79100	NA	14900	NA
Chromium	NA	5.00	NA	<5.00	NA	52.0	NA
Cobalt	NA	<7.00	NA	<7.00	NA	13.0	NA
Copper	NA	1.65[f]	NA	2.04[f]	NA	21.2[f]	NA
Copper (F)	NA	10.3	NA	4.50	NA	10.4	NA
Cyanide	NA	<5.00[n]	NA	6.90	NA	<5.00[n]	NA
Iron	NA	569	NA	1480	NA	11100	NA
Iron (F)	NA	<8.00	NA	<8.00	NA	55.0	NA
Lead	NA	15.2	NA	1.66[f]	NA	36.5	NA
Magnesium	NA	18800	NA	114000	NA	27100	NA
Magnesium (F)	NA	18600	NA	88700	NA	20400	NA
Manganese	NA	183	NA	698	NA	261	NA
Manganese (F)	NA	40.0	NA	499	NA	<6.00	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 7.4-19 Summary of Groundwater Sample Detections, DEH Study Area, Follow-on RI (page 2 of 6)

Sample ID	DEHGW01	DEHGW01	DEHGW02	DEHGW02	DEHGW03	DEHGW03	DEHGW04
Sample Depth (ft bgs)	5.0	8.0	5.0	10.0	6.0	10.0	4.5
Sample Date	01/11/95	11/10/94	01/11/95	11/07/94	01/11/95	11/10/94	01/11/95
INORGANICS (µg/L)							
Mercury	NA	0.500[f]	NA	<0.110	NA	0.600[f]	NA
Nickel	NA	14.0[n]	NA	19.4	NA	70.0 [an]	NA
Nickel (F)	NA	6.30	NA	10.7	NA	11.5	NA
Potassium	NA	5170	NA	33500	NA	29500	NA
Potassium (F)	NA	5000	NA	26400	NA	23400	NA
Selenium	NA	<1.72	NA	4.10[m]	NA	<17.2[a]	NA
Silver	NA	<2.00[p]	NA	<2.00[p]	NA	11.0[f]	NA
Sodium	NA	31100	NA	639000	NA	533000	NA
Sodium (F)	NA	30200	NA	514000	NA	503000	NA
Vanadium	NA	<4.00	NA	5.00	NA	28.0	NA
Vanadium (F)	NA	4.00	NA	4.00	NA	<4.00	NA
Zinc	NA	12.0	NA	33.0	NA	159	NA
Zinc (F)	NA	5.00	NA	4.00	NA	6.00	NA
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	288000	NA	272000	NA	232000	NA
Bicarbonate Alkalinity	NA	288000	NA	272000	NA	232000	NA
Chloride	NA	38000	NA	1010000	NA	726000	NA
Fluoride	NA	<16.0	NA	26.8	NA	1220	NA
Nitrate	NA	<41.0	NA	<41.0	NA	<41.0	NA
Sulfate	NA	64600	NA	181000	NA	144000	NA
Total Dissolved Solids	NA	404000[f]	NA	2360000	NA	1480000	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [illegible]maly observed
[n] = estimated value
[p] = unreliable data

Table 7.4-19 Summary of Groundwater Sample Detections, DEH Study Area, Follow-on RI (page 3 of 6)

Sample ID	DEHGW01	DEHGW01	DEHGW02	DEHGW02	DEHGW03	DEHGW03	DEHGW04
Sample Depth (ft bgs)	5.0	8.0	5.0	10.0	6.0	10.0	4.5
Sample Date	01/11/95	11/10/94	01/11/95	11/07/94	01/11/95	11/10/94	01/11/95
VOLATILE ORGANICS (µg/L)							
1,2-Dichloroethane	1.94	NA	1.20	NA	2.35	NA	1.30
Trichloroethene	<0.281	NA	6.21	NA	<0.281	NA	<0.281
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	6.86[f]	NA	11.7[f]	NA	8.34[f]	NA
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

Table 7.4-19 Summary of Groundwater Sample Detections, DEH Study Area, Follow-on RI (page 4 of 6)

Sample ID	DEHGW04
Sample Depth (ft bgs)	9.0
Sample Date	11/10/94
INORGANICS (µg/L)	
Aluminum	1600
Aluminum (F)	<25.0
Antimony	7.67[f]
Antimony (F)	20.2
Arsenic	5.36
Arsenic (F)	4.60
Barium	95.0
Barium (F)	65.0
Beryllium	1.00[f]
Beryllium (F)	<1.00
Cadmium	22.0[f]
Calcium	56800
Calcium (F)	58200
Chromium	19.0
Cobalt	<7.00
Copper	9.83[f]
Copper (F)	9.21
Cyanide	<5.00[n]
Iron	2180
Iron (F)	<8.00
Lead	15.0
Magnesium	26300
Magnesium (F)	24200
Manganese	82.0
Manganese (F)	<6.00

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [redacted]omaly observed
[n] = estimated value
[p] = unreliable data

Table 7.4-19 Summary of Groundwater Sample Detections, DEH Study Area, Follow-on RI (page 5 of 6)

Sample ID	DEHGW04
Sample Depth (ft bgs)	9.0
Sample Date	11/10/94
INORGANICS (µg/L)	
Mercury	0.500[f]
Nickel	28.5[n]
Nickel (F)	<5.00
Potassium	16500
Potassium (F)	14400
Selenium	1.89
Silver	2.00[f]
Sodium	256000
Sodium (F)	255000
Vanadium	10.0
Vanadium (F)	<4.00
Zinc	25.0
Zinc (F)	4.00
MISCELLANEOUS PARAMETERS (µg/L)	
Alkalinity (Total as CaCO3)	332000
Bicarbonate Alkalinity	332000
Chloride	32900
Fluoride	<16.0
Nitrate	1660
Sulfate	11100
Total Dissolved Solids	1040000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value
[p] = unreliable data

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Table 7.4-19 Summary of Groundwater Sample Detections, DEH Study Area, Follow-on RI (page 6 of 6)

Sample ID	DEHGW04
Sample Depth (ft bgs)	9.0
Sample Date	11/10/94
VOLATILE ORGANICS (µg/L)	
1,2-Dichloroethane	NA
Trichloroethene	NA
SEMIVOLATILE ORGANICS (µg/L)	
Bis(2-ethylhexyl) phthalate	11.2[f]
ORGANOCHLORINE PESTICIDES (µg/L)	
No detections above reporting limit	
POLYCHLORINATED BIPHENYLS (µg/L)	
No detections above reporting limit	
CHLORINATED HERBICIDES (µg/L)	
No detections above reporting limit	
TOTAL PETROLEUM HYDROCARBONS (µg/L)	
TPH-diesel fraction	
No detections above reporting limit	
TPH-gas fraction	
No detections above reporting limit	

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = d[redacted]ffected by blank contamination
[m] = [redacted]omaly observed
[n] = estimated value
[p] = unreliable data

Table 7.4-20 Summary of Discrete Groundwater Sample Detections, Building 286, Follow-on RI (page 1 of 2)

Sample ID	286SB06	286SB08
Sample Depth (ft bgs)	10.0	10.0
Sample Date	12/01/94	12/01/94
INORGANICS (µg/L)		
Aluminum	350000	275000
Antimony	4.62	2.84
Arsenic	397[a]	337[a]
Barium	1070	900
Beryllium	8.00	8.00
Calcium	76200	371000
Chromium	1890	2110
Cobalt	710	659
Copper	460[a]	708[a]
Cyanide	7.30[f]	<5.00
Iron	577000	534000
Lead	229[a]	334[a]
Magnesium	214000	250000
Manganese	19100	24600
Mercury	0.500	3.40
Nickel	748[a]	3520[a]
Potassium	54500	49300
Silver	<2.00[p]	12.0
Sodium	299000	150000
Vanadium	1000	913
Zinc	1050	1050
MISCELLANEOUS PARAMETERS (µg/L)		
Alkalinity (Total as CaCO3)	376000	327000
Bicarbonate Alkalinity	376000	327000
Chloride	256000	185000
Nitrate	4320	3340
Sulfate	173000	72100
Total Dissolved Solids	1180000	604000
VOLATILE ORGANICS (µg/L)		
No detections above reporting limit		

µg/L = microgram per Liter
< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 7.4-20 Summary of Discrete Groundwater Sample Detections, Building 286, Follow-on RI (page 2 of 2)

Sample ID	286SB06	286SB08
Sample Depth (ft bgs)	10.0	10.0
Sample Date	12/01/94	12/01/94
SEMIVOLATILE ORGANICS (µg/L)		
Bis(2-ethylhexyl) phthalate	7.02[f]	5.35[f]
Di-n-butylphthalate	2.70	2.24
TOTAL PETROLEUM HYDROCARBONS (µg/L)		
TPH-gas fraction	<10	11
TPH-diesel fraction		
No detections above reporting limit		

µg/L = microgram per Liter
< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 7.4-21 Summary of Discrete Groundwater Sample Detections Associated with Boring 268SO09, Building 286, Follow-on RI (page 1 of 5)

Sample ID	286SB01	286SB02	286SB03	286SB04	286SB09	286SB09	286SB09
Sample Depth (ft bgs)	9.0	9.5	9.5	9.5	11.5	11.5	21.5
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	01/04/95	04/13/95	01/04/95
INORGANICS (µg/L)							
Arsenic	NA	NA	NA	NA	NA	NA	NA
Lead	900	860	90	1100	540	55	82
Zinc	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 7.4-21 Summary of Discrete Groundwater Sample Detections Associated with Boring 268SO09, Building 286, Follow-on RI (page 2 of 5)

Sample ID	286SB09	286SB10	286SB10	286SB10	286SB11	286SB11	286SB11
Sample Depth (ft bgs)	29.5	11.5	21.5	31.5	9.5	22.0	31.5
Sample Date	01/04/95	01/05/95	01/05/95	01/05/95	01/04/95	01/05/95	01/05/95
INORGANICS (µg/L)							
Arsenic	NA	NA	NA	NA	NA	NA	NA
Lead	10	37	17	17	100	60	81
Zinc	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 7.4-21 Summary of Discrete Groundwater Sample Detections Associated with Boring 268SO09, Building 286, Follow-on RI (page 3 of 5)

Sample ID	286SB12	286SB12	286SB12	286SB12	286SB12	286SB12	286SB13
Sample Depth (ft bgs)	11.0	11.5	20.0	21.5	30.0	31.5	11.0
Sample Date	04/13/95	01/06/95	04/13/95	01/06/95	04/13/95	01/06/95	04/12/95
INORGANICS (µg/L)							
Arsenic	6	NA	18	NA	73	NA	6
Lead	NA	<5	NA	<5	NA	<5	170
Zinc	1100	NA	150[f]	NA	200[f]	NA	2100

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 7.4-21 Summary of Discrete Groundwater Sample Detections Associated with Boring 268SO09, Building 286, Follow-on RI (page 4 of 5)

Sample ID	286SB13	286SB13	286SB13	286SB14	286SB14	286SB14	286SB14
Sample Depth (ft bgs)	20.0	30.0	40.0	10.0	22.0	30.0	40.0
Sample Date	04/13/95	04/13/95	04/13/95	04/14/95	04/14/95	04/14/95	04/14/95
INORGANICS (µg/L)							
Arsenic	8	8	NA	<5	<5	<5	NA
Lead	<5	11	<5	<5	10	<5	21
Zinc	180[f]	1000	NA	40	860	320	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 7.4-21 Summary of Discrete Groundwater Sample Detections Associated with Boring 268SO09, Building 286, Follow-on RI (page 5 of 5)

Sample ID	286SB15	286SB15	286SB15	286SB15
Sample Depth (ft bgs)	10.5	20.0	30.0	40.0
Sample Date	04/13/95	04/13/95	04/13/95	04/14/95
INORGANICS (µg/L)				
Arsenic	11	6	69	NA
Lead	590	28	6	<5
Zinc	1400	1700	<20	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination

Table 7.4-22 Summary of Discrete Groundwater Sample Detections, Building 287, Follow-on RI (page 1 of 1)

Sample ID	287SB01
Sample Depth (ft bgs)	10.0
Sample Date	11/30/94

TOTAL PETROLEUM HYDROCARBONS (µg/L)

TPH-diesel fraction

No detections above reporting limit

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter

Table 7.4-23 Summary of Discrete Groundwater Sample Detections Associated with Well DEHGW02, DEH Study Area, Follow-on RI (page 1 of 3)

Sample ID	DEHSB03	DEHSB03	DEHSB03	DEHSB04	DEHSB04	DEHSB04	DEHSB05
Sample Depth (ft bgs)	9.0	20.0	30.0	9.0	20.0	30.0	9.0
Sample Date	12/05/94	12/05/94	12/05/94	12/01/94	12/01/94	12/01/94	12/02/94
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5
Trichloroethene	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	4

µg/L = microgram per Liter

< = less than reporting limit

Table 7.4-23 Summary of Discrete Groundwater Sample Detections Associated with Well DEHGW02, DEH Study Area, Follow-on RI (page 2 of 3)

Sample ID	DEHSB05	DEHSB05	DEHSB06	DEHSB06	DEHSB06	DEHSB07	DEHSB07
Sample Depth (ft bgs)	20.0	30.0	11.5	20.0	30.0	9.0	20.0
Sample Date	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/05/94	12/05/94
VOLATILE ORGANICS (µg/L)							
Trichloroethene And Breakdown Products							
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Trichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	5.8	0.7

µg/L = microgram per Liter

< = less than reporting limit

Table 7.4-23 Summary of Discrete Groundwater Sample Detections Associated with Well DEHGW02, DEH Study Area, Follow-on RI (page 3 of 3)

Sample ID	DEHSB07
Sample Depth (ft bgs)	30.0
Sample Date	12/05/94
VOLATILE ORGANICS (µg/L)	
Trichloroethene And Breakdown Products	
cis-1,2-Dichloroethene	<0.5
Trichloroethene	<0.5

µg/L = microgram per Liter

< = less than reporting limit

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Table 7.5-1 Comparison of Filtered and Unfiltered Discrete Groundwater Sample Results for Lead, Follow-on RI (page 1 of 2)

Sample ID	286SB09	286SB09	286SB13	286SB13	286SB14	286SB14
Sample Depth (ft bgs)	11.5	11.5	11.0	20.0	10.0	22.0
Sample Date	01/04/95	04/13/95	04/12/95	04/13/95	04/14/95	04/14/95
INORGANICS (µg/L)						
Lead - unfiltered	540	55	170	<5	<5	10
Lead - filtered	NA	<5	<5	<5	<5	<5

µg/L = microgram per liter
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 7.5-1 Comparison of Filtered and Unfiltered Discrete Groundwater Sample Results for Lead, Follow-on RI (page 2 of 2)

Sample ID	286SB15	286SB15
Sample Depth (ft bgs)	10.5	20.0
Sample Date	04/13/95	04/13/95
INORGANICS (µg/L)		
Lead - unfiltered	590	28
Lead - filtered	<5	<5

µg/L = microgram per liter
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 8.1-1 Summary of Groundwater Sample Detections, Building 215, Follow-on RI (page 1 of 3)

Sample ID	215GW01	215GW01	215GW02	215GW02	215GW03	215GW03
Sample Depth (ft bgs)	34.0	39.0	34.0	37.0	34.0	37.0
Sample Date	01/11/95	11/08/94	01/09/95	11/10/94	01/11/95	11/10/94
INORGANICS (µg/L)						
Aluminum	NA	1070	NA	686	NA	922
Antimony (F)	NA	11.4	NA	12.6	NA	10.4
Arsenic	NA	<1.70	NA	1.79	NA	2.10
Arsenic (F)	NA	<1.70	NA	2.10	NA	<1.70
Barium	NA	24.0	NA	39.0	NA	77.0
Barium (F)	NA	21.0	NA	32.0	NA	65.0
Beryllium (F)	NA	1.00	NA	1.00	NA	<1.00
Calcium	NA	17000	NA	20800	NA	30500
Calcium (F)	NA	17800	NA	22100	NA	31100
Chromium	NA	30.0[f]	NA	27.0	NA	36.0
Chromium (F)	NA	20.0	NA	25.0	NA	29.0
Copper	NA	1.56[f]	NA	1.11[f]	NA	1.96[f]
Copper (F)	NA	7.04	NA	7.10	NA	7.23
Cyanide	NA	<5.00	NA	6.30[n]	NA	5.30
Iron	NA	1600[f]	NA	1100	NA	1440
Iron (F)	NA	10.0	NA	<8.00	NA	<8.00
Lead	NA	5.38	NA	1.27[f]	NA	0.830[f]
Lead (F)	NA	<0.735	NA	<0.735	NA	1.70
Magnesium	NA	22200	NA	28800	NA	39100
Magnesium (F)	NA	23300	NA	29700	NA	37100
Manganese	NA	38.0	NA	42.0	NA	24.0
Manganese (F)	NA	29.0	NA	<6.00	NA	<6.00
Mercury	NA	0.700[f]	NA	0.300[f]	NA	0.500[f]
Nickel	NA	17.0 [am]	NA	7.56[n]	NA	10.5[n]
Nickel (F)	NA	<5.00	NA	<5.00	NA	5.90

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value

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Table 8.1-1 Summary of Groundwater Sample Detections, Building 215, Follow-on RI (page 2 of 3)

Sample ID	215GW01	215GW01	215GW02	215GW02	215GW03	215GW03
Sample Depth (ft bgs)	34.0	39.0	34.0	37.0	34.0	37.0
Sample Date	01/11/95	11/08/94	01/09/95	11/10/94	01/11/95	11/10/94
INORGANICS (µg/L)						
Potassium	NA	879	NA	1990	NA	2770
Potassium (F)	NA	1540	NA	2010	NA	1650
Selenium	NA	<1.72	NA	2.42	NA	<1.72
Sodium	NA	108000	NA	87300	NA	140000
Sodium (F)	NA	93900	NA	89500	NA	133000
Thallium	NA	<0.811	NA	<0.811	NA	1.47
Thallium (F)	NA	1.50	NA	<0.811	NA	<0.811
Vanadium	NA	20.0	NA	19.0	NA	20.0
Vanadium (F)	NA	15.0	NA	15.0	NA	14.0
Zinc	NA	28.0[f]	NA	15.0	NA	13.0
Zinc (F)	NA	7.00	NA	7.00	NA	6.00
MISCELLANEOUS PARAMETERS (µg/L)						
Alkalinity (Total as CaCO3)	NA	223000	NA	258000	NA	434000
Bicarbonate Alkalinity	NA	223000[f]	NA	258000	NA	434000
Chloride	NA	332000 [an]	NA	68900	NA	57900
Fluoride	NA	17.5	NA	<16.0	NA	<16.0
Nitrate	NA	5110	NA	6060	NA	5830
Sulfate	NA	43100	NA	55100	NA	105000
Total Dissolved Solids	NA	470000[f]	NA	448000	NA	634000
VOLATILE ORGANICS (µg/L)						
1,2-Dichloroethane	2.39	NA	<0.456	NA	<0.456	NA
Chloroform	<0.124	NA	0.630	NA	<0.124	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
[n] = estimated value
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = [redacted]omaly observed

Table 8.1-1 Summary of Groundwater Sample Detections, Building 215, Follow-on RI (page 3 of 3)

Sample ID	215GW01	215GW01	215GW02	215GW02	215GW03	215GW03
Sample Depth (ft bgs)	34.0	39.0	34.0	37.0	34.0	37.0
Sample Date	01/11/95	11/08/94	01/09/95	11/10/94	01/11/95	11/10/94

SEMIVOLATILE ORGANICS (µg/L)

No detections above reporting limit

ORGANOCHLORINE PESTICIDES (µg/L)

No detections above reporting limit

POLYCHLORINATED BIPHENYLS (µg/L)

No detections above reporting limit

CHLORINATED HERBICIDES (µg/L)

No detections above reporting limit

TOTAL PETROLEUM HYDROCARBONS (µg/L)

TPH-diesel fraction

No detections above reporting limit

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[m] = QC anomaly observed
[n] = estimated value

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Table 8.2-1 Underground Storage Tanks Located in the Vicinity of Buildings 228/231 (compiled from data reported by WES, 1990, except where noted)

Tank Number[1]	Tank Location (Building number)	Reported Size (Gallons)	Reported or Suspected Tank Contents	Status
1	231-1	10,000	Gasoline	Removed 11/89[2]
2	231-2	10,000	Gasoline	Removed 11/89[2]
3	231-3	10,000	Gasoline	Removed 11/89[2]
4	231-4	10,000	Gasoline	Removed 11/89[2]
5	231-5	750[3]	Waste Oil	Removed 12/96[5]
6	231-6	1,000[3]	Gasoline	Removed 6/93
7	228-1	500[3]	Dry Cleaning Solvent[4]	Removed 6/93
8	228-2	500[3]	Dry Cleaning Solvent[4]	Removed 6/93
9	228-3	500[3]	Dry Cleaning Solvent[4]	Removed 6/93
10	227[6]	Unknown	Bunker Oil	Inactive
11	1029	550	Fuel Oil	Inactive[7]

[1] See Figure 8.2-1 for location of tanks.

[2] ELM, 1991

[3] Montgomery Watson, 1996b

[4] Probable historical tank contents; sampling of contents in early 1990 indicated presence of fuel hydrocarbons and possible Stoddard solvent in tanks 8 and 9 (Section 8.2.4.2)

[5] Personal communication with Montgomery Watson personnel.

[6] Confirmed not to exist (Montgomery Watson, 1996a)

[7] Scheduled for removal in 1996

Table 8.2-2 Screened Intervals of Building 231 Wells

Well No.	Depth of Screened Interval (Feet)	Water-Bearing Zone(s) Screened	Well Classification
231GW01	7-15	Shallow	Shallow
231GW02	7-15	Shallow	Shallow
231GW03	7-15	Shallow & Intermediate	Intermediate
231GW04	4.5-14.5	Shallow & Intermediate	Intermediate
231GW06	13.3-23.3	Intermediate	Intermediate
231GW07[1]	6-16	Shallow & Intermediate	Shallow
231GW08	6-11	Shallow	Shallow
231GW09	10.5-20.5	Intermediate	Intermediate
231GW10	4.5-8.5	Shallow	Shallow
231GW11	4.5-9.5	Shallow	Shallow
231GW12	12-22	Intermediate	Intermediate
231GW13	33.5-43.5	Deep	Deep
231GW15	14.5-19.5	Intermediate	Intermediate
231GW16	4.5-8.5	Shallow	Shallow
231GW17	25-35	Deep	Deep
231GW18	15-18.3	Intermediate	Intermediate
231GW19	4.5-9.3	Shallow	Shallow
231GW20	30-40	Deep	Deep
231GW21	4.8-8.8	Shallow	Shallow

[1] = Water level reflects influence from both shallow and intermediate zones.

Table 8.2-3 Comparison of Head Potentials in Building 231 Well Clusters

Well Cluster	Potentiometric Head (ft-mll)			Head Difference[1] (ft)
	Shallow Zone	Intermediate Zone	Deep Zone	
231GW16/15/13	6.09	7.33	11.59	5.50
231GW21/05/20	8.67	9.70	11.84	3.17
231GW19/18/17	8.80	10.43	11.76	2.96

Based on water levels collected on April 14, 1995.

[1] Difference in potentiometric head between adjacent shallow and deep zone wells.

Table 8.2-4 Summary of Soil Boring Sample Detections, Building 231, Initial RI

Sample ID	231GW04A	231GW04B	231GW05B	231GW06B	231GW07B	231SO01A	231SO02A	231SO02B
Sample Depth (ft bgs)	3.5	6.0	5.5	12.0	7.0	0.5	1.5	5.0
Sample Date	10/22/90	10/22/90	10/23/90	10/24/90	10/25/90	12/13/90	12/13/90	12/13/90
INORGANICS (μg/g)								
Aluminum	22,600	25,700	10,600	20,000	18,700	19,200	18,700	28,700
Arsenic	<2.50	<2.50	<2.50	<2.50	2.96	<2.50	<2.50	3.82
Barium	180	251	64.6	118	111	196	188	277
Beryllium	0.594	0.695	<0.427	0.738	0.752	<0.427	<0.427	<0.427
Calcium	9,070	6,760	4,620	3,910	5,730	14,300	7,830	5,820
Chromium	110	95.5	52.8	86.0	114	307	94.9	94.8
Cobalt	18.3	19.5	8.84	15.0	15.6	27.9	16.7	17.9
Copper	23.3	35.2	9.71	15.6	21.9	28.5	32.9	42.8
Cyanide	<0.250	<0.250	<0.250	<0.250	<0.250	0.294	<0.250	<0.250
Iron	30,900	34,900	19,800	29,300	29,800	35,600	27,800	41,900
Lead	80.9	52.6	20.9	13.8	75.1	107	160	141
Magnesium	9,680	6,740	4,305	3,860	7,360	40,800	11,000	12,400
Manganese	432	588	357	440	515	463	412	604
Mercury	1.08	0.646	0.070	0.053	0.083	0.186	0.345	0.258
Nickel	101	68.6	40.9	47.7	82.9	356	101	95.2
Potassium	2,980	3,390	859	1,170	1,580	1,950	2,130	2,890
Silver	<0.803	<0.803	<0.803	<0.803	<0.803	<0.803	<0.803	6.17
Sodium	281	232	238	184	191	248	189	201
Vanadium	71.2	74.6	40.2	64.0	57.2	58.2	56.3	58.9
Zinc	117	62.3	49.6	38.6	74.3	156	184	112
VOLATILE ORGANICS (μg/g)								
Benzene	<0.10	<0.10	<0.10	0.25	<0.10	<0.10	<0.10	<0.10
1,3-Dimethyl-benzene/ m-Xylene	<0.23	<0.23	<0.23	0.54	<0.23	<0.23	<0.23	<0.23
Tetrachloroethylene	<0.16	<0.16	<0.16	<0.16	<0.16	0.840	<0.16	<0.16
SEMIVOLATILE ORGANICS (μg/g)								
Bis(2-ethylhexyl) phthalate	5.4	<0.48	<0.48	<0.48	2.8	1.9	1.1	1.4
ppDDD	0.42(c)	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
Fluoranthene	0.046	<0.032	0.099	<0.032	0.039	0.14	<0.032	<0.032
Phenanthrene	0.13	<0.032	0.12	<0.032	<0.032	0.28	<0.032	<0.032
Pyrene	<0.083	<0.083	<0.083	<0.083	<0.083	0.29	<0.083	<0.083
TOTAL PETROLEUM HYDROCARBONS (μg/g)	5,000	80	200	<10	<10	NA	NA	NA

μg/g = micrograms per gram
< = less than certified reporting limit
(c) = confirmed pesticide detection
NA = not analyzed

Table 8.2-5 Summary of Soil Sample Detections, Building 231 Area, IRA

Sample ID	231SB03	231SB04	231SB05	231SB06	231SB07	231SB08	231SB09
Sample Depth (ft bgs)	3.0 ft	2.2 ft	2.5 ft	2.3 ft	2.5 ft	2.9 ft	2.5 ft
Sample Date	10/14/91	10/14/91	10/14/91	10/14/91	10/15/91	10/15/91	10/22/91
VOLATILE ORGANICS (μg/g)							
Acetone	0.074	0.063	0.090	<0.046	<0.046	<0.046	0.151
Benzene	<0.002	0.025	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	<0.002	0.17	<0.002	<0.002	<0.002	<0.002	<0.002
Methylethyl ketone/ 2-butanone	0.021	<0.005	0.022	<0.005	<0.005	0.013	0.028
Toluene	<0.002	<0.002	<0.002	<0.002	0.007	0.015	<0.002
Xylenes	<0.002	0.141	<0.002	<0.002	<0.002	<0.002	<0.002
TOTAL PETROLEUM HYDROCARBONS (μg/g)							
TPH	<10	100	6,000	<10	400	<10	200

μg/g = micrograms per gram
< = less than practical quantitation limit
TPH = total recoverable petroleum hydrocarbons, Method 418.1
Note: Differences between IRDMIS database and above values due to rounding criteria of USATHAMA QAP, 1990. Non-certified methods (TPH) are rounded to one significant figure.

Table 8.2-6 Summary of Soil Boring Sample Detections, Building 228, Follow-on RI (page 1 of 1)

Sample ID	228SB01	228SB01	228SB02	228SB02
Sample Depth (ft bgs)	1.0	2.2	1.0	3.7
Sample Date	12/09/94	12/09/94	12/09/94	12/09/94
VOLATILE ORGANICS (µg/g)				
No detections above reporting limit				
SEMIVOLATILE ORGANICS (µg/g)				
Bis(2-ethylhexyl) phthalate	0.288	<0.625[a]	0.440	0.124

µg/g = microgram per gram
< = less than reporting limit
[a] = diluted sample

Table 8.2-7 Summary of Soil Boring Sample Detections, Former UST Site, Building 231, Follow-on RI (page 1 of 2)

Sample ID	231SB15	231SB15	231SB16	231SB16	231SB17	231SB17	231SB28
Sample Depth (ft bgs)	0.0	4.0	0.0	4.0	1.0	4.0	0.5
Sample Date	12/06/94	12/06/94	12/06/94	12/06/94	12/07/94	12/07/94	04/06/95
INORGANICS (µg/g)							
Lead-XRF	<25	36	66.5	48.4	<25	<25	NA
Lead	NA	NA	NA	13	NA	NA	25
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	10400	8040	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<100[a]	>100[a]	>100[a]	>100[a]	>100[a]	<10	NA
TPH-diesel fraction	NA	NA	NA	165	NA	NA	170[a]
TPH-gas fraction	NA	NA	NA	88.5[a]	NA	NA	<1

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 8.2-7 Summary of Soil Boring Sample Detections, Former UST Site, Building 231, Follow-on RI (page 2 of 2)

Sample ID	231SB28	231SB29	231SB29	231SB30	231SB30	231SB31	231SB31
Sample Depth (ft bgs)	4.0	1.0	4.0	1.0	4.0	1.0	4.0
Sample Date	04/06/95	04/06/95	04/06/95	04/06/95	04/06/95	04/06/95	04/06/95
INORGANICS (µg/g)							
Lead-XRF	NA	NA	NA	NA	NA	NA	NA
Lead	81	110	110	120	53	4.5	120
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	NA	NA	NA	NA	NA	NA	NA
TPH-diesel fraction	12	24	<10	20	<10	76	12
TPH-gas fraction	<1	<1	<1	<1	<1	<1	2

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

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Table 8.2-8 Summary of Groundwater and Free Product Sample Detections, Buildings 228/231, Initial RI

Sample ID	231GW01	231GW02	231GW03[1]	231GW04	231GW05[1]	231GW06[1,2]	231GW07[1]	228FP02
Sample Date	12/03/90	12/04/90	12/07/90	12/05/90	12/07/90	12/10/90	12/07/90	11/09/90 (tank)
INORGANICS: filtered, except for cyanide (μg/L)								
Arsenic	<23.5[a]	5.94	3.63	10.5	4.15	3.63	<2.35	NA
Barium	20.7	200	11.0	114	<2.82	14.6	12.2	NA
Calcium	54,300	84,500	23,900	81,800	25,400	20,400	19,600	NA
Chromium	<16.8	22.6	<16.8	30.8	<16.8	<16.8	<16.8	NA
Iron	10,300	13,900	<77.5	6,700	163	<77.5	<77.5	NA
Magnesium	75,300	65,400	50,600	51,600	51,100	50,100	39,000	NA
Manganese	165	2,780	76.3	3,070	38.7	48.8	348	NA
Potassium	3040	6210	7380	15,100	3,200	7,800	8,920	NA
Selenium	<2.53	<2.53	<2.53	<2.53	4.57	<2.53	4.06	NA
Sodium	71,000[a]	38,000	40,000	51,200	44,100	39,300	56,000	NA
Zinc	<18.0	<18.0	<18.0	<18.0	<18.0	25.4	<18.0	NA
VOLATILE ORGANICS (μg/L, except as noted)								
Benzene	40[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<50[a] μg/g
Ethylbenzene	<10[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200[a] μg/g
Toluene	<10[a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200[a] μg/g
Xylene	<20[a]	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	900[a] μg/g
SEMIVOLATILE ORGANICS (μg/L)	ND	ND	ND	ND	ND	ND	ND	NA
TOTAL PETROLEUM HYDROCARBONS (μg/L)	400	<100	200	500	<100	<100	100	NA

[1] Lab missed hold time for TPHC, values are for comparison only.
< = less than certified reporting limit
[2] Lab missed hold time for VOC and SVOC, values are for comparison only.
NA = not analyzed
μg/L = micrograms per liter
ND = no detections
μg/g = micrograms per gram
[a] = sample

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 1 of 10)

Well Number	231GW01			231GW02			231GW03		
Sample Date	10-17-91	12-04-91	03-06-92	10-17-91	12-03-91	03-06-92	10-17-91	12-05-91	03-06-92
INORGANICS: filtered, except for cyanide (μg/L)									
Calcium	75000.000	57000.000	56000.000	91000.000	86000.000	75000.000	28000.000	28000.000	21000.000
Iron	14000.000	11000.000	85000.000	11000.000	23000.000	19000.000	<112.000	<1100.000	<112.000
Potassium	4140.000	<22000.000	<16000.000	6880.000	<11000.000	<22000.000	8140.000	13000.000	9350.000
Magnesium	97000.000	66000.000	70000.000	72000.000	62000.000	58000.000	62000.000	66000.000	49000.000
Sodium	110000.000	84000.000	77000.000	45000.000	50000.000	33000.000	57000.000	62000.000	46000.000
MISCELLANEOUS PARAMETERS (μg/L)									
Chloride	86000.000	97000.000	87000.000	27000.000	31000.000	28000.000	52000.000	62000.000	47000.000
Fluoride	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000
Bicarbonate	500000.000	595000.000	617000.000	580000.000	616000.000	673000.000	342000.000	362000.000	359000.000
Sulfate	20600.000	6580.000	22800.000	<5000.000	<5000.000	<5000.000	60700.000	63500.000	60700.000
Nitrite-Nitrate (non-specific)	<2000.000	220.000	<1000.000	42.000	260.000	65.700	36.400	56.700	38.600

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 2 of 10)

Well Number	231GW04			231GW05			231GW06		
Sample Date	10-23-91	12-03-91	03-04-92	10-23-91	12-05-91	03-04-92	10-22-91	12-03-91	03-03-92
INORGANICS: filtered, except for cyanide (μg/L)									
Calcium	88000.000	100000.000	97000.000	28000.000	25000.000	26000.000	20000.000	21000.000	53000.000
Iron	19000.000	20000.000	23000.000	183.000	403.000	474.000	<112.000	<112.000	3110.000
Potassium	<110000.000	<54000.000	<22000.000	3290.000	2940.000	4890.000	9020.000	<11000.000	<11000.000
Magnesium	51000.000	52000.000	52000.000	56000.000	48000.000	56000.000	51000.000	50000.000	71000.000
Sodium	41000.000	56000.000	35000.000	62000.000	57000.000	53000.000	41000.000	50000.000	220000.000
MISCELLANEOUS PARAMETERS (μg/L)									
Chloride	38000.000	35000.000	22600.000	66000.000	63000.000	58000.000	45000.000	44000.000	60000.000
Fluoride	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	1270.000
Bicarbonate	625000.000	598000.000	671000.000	329000.000	322000.000	342000.000	283000.000	292000.000	1000000.000
Sulfate	12400.000	14100.000	5460.000	45500.000	40900.000	49900.000	47500.000	45600.000	<5000.000
Nitrite-Nitrate (non-specific)	58.500	101.000	<100.000	74.600	35.000	91.600	3800.000	2400.000	2800.000

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 3 of 10)

Well Number	231GW07			231GW08			231GW09		
Sample Date	10-22-91	12-04-91	03-03-92	10-30-91	12-03-91	03-04-92	10-18-91	12-04-91	03-04-92
INORGANICS: filtered, except for cyanide (μg/L)									
Calcium	19000.000	18000.000	19000.000	75000.000	66000.000	76000.000	25000.000	28000.000	37000.000
Iron	808.000	442.000	877.000	128.000	932.000	2620.000	<112.000	<112.000	<112.000
Potassium	8180.000	8440.000	22000.000	<11000.000	4250.000	5690.000	2490.000	2390.000	3280.000
Magnesium	43000.000	37000.000	43000.000	55000.000	51000.000	59000.000	39000.000	37000.000	43000.000
Sodium	67000.000	72000.000	64000.000	100000.000	110000.000	95000.000	83000.000	120000.000	92000.000
MISCELLANEOUS PARAMETERS (μg/L)									
Chloride	76000.000	77000.000	65000.000	72000.000	66000.000	48000.000	59000.000	62000.000	53000.000
Fluoride	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000
Bicarbonate	317000.000	298000.000	351000.000	622000.000	582000.000	651000.000	244000.000	299000.000	411000.000
Sulfate	<5000.000	<5000.000	10500.000	19300.000	26900.000	40800.000	71800.000	76400.000	72500.000
Nitrate-Nitrite (non-specific)	30.100	47.600	41.500	1800.000	2000.000	290.000	7000.000	7000.000	6500.000

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 4 of 10)

Well Number	231GW10			231GW11			231GW12		
Sample Date	10-21-91	12-02-91	03-03-92	10-18-91	12-03-91	03-06-92	10-21-91	12-03-91	03-03-92
INORGANICS: filtered, except for cyanide (μg/L)									
Calcium	56000.000	49000.000	20000.000	43000.000	41000.000	31000.000	24000.000	23000.000	24000.000
Iron	736.000	2340.000	<112.000	<11000.000	3540.000	7500.000	<112.000	<112.000	<112.000
Potassium	<110000.000	<11000.000	<11000.000	<110000.000	15000.000	14000.000	<1080.000	<1080.000	<1080.000
Magnesium	72000.000	66000.000	53000.000	76000.000	67000.000	59000.000	55000.000	49000.000	56000.000
Sodium	230000.000	300000.000	44000.000	100000.000	120000.000	82000.000	50000.000	60000.000	53000.000
MISCELLANEOUS PARAMETERS (μg/L)									
Chloride	82000.000	78000.000	43000.000	79000.000	77000.000	79000.000	60000.000	64000.000	60000.000
Fluoride	1140.000	1240.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000	<1000.000
Bicarbonate	988000.000	907000.000	313000.000	604000.000	583000.000	573000.000	256000.000	256000.000	318000.000
Sulfate	<5000.000	<5000.000	47400.000	<5000.000	12400.000	6670.000	64600.000	65900.000	73400.000
Nitrate-Nitrite (non-specific)	30.300	25.500	17.500	<2000.000	85.300	<100.000	4000.000	4900.000	3400.000

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 5 of 10)

Well Number		231GWIN02	
Sample Date	10-29-91	12-03-91	03-04-92
INORGANICS: filtered, except for cyanide (μg/L)			
Calcium	340000.000	460000.000	110000.000
Iron	<11000.000	240.000	1980.000
Potassium	<110000.000	<110000.000	9770.000
Magnesium	<8900.000	11000.000	5690.000
Sodium	290000.000	400000.000	140000.000
MISCELLANEOUS PARAMETERS (μg/L)			
Chloride	390000.000	43000.000	86000.000
Fluoride	<10000.000	<10000.000	<1000.000
Bicarbonate	146000.000	193000.000	403000.000
Sulfate	870000.000	990000.000	153000.000
Nitrate-Nitrite (non-specific)	25.000	18.500	19.800

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 6 of 10)

Well Number	231GW01			231GW02		
Sample Date	10-17-91	12-04-91	03-06-92	10-17-91	12-03-91	03-06-92
VOLATILE ORGANICS (μg/L)						
Acetone	<17	<17	<17	<17	<17	<17
Benzene	5.4	2.9	3.1	<2.8	<2.8	<2.8
Ethylbenzene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylethyl ketone	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2
Methyl-n-butyl ketone	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Toluene	2.3	3.1	<2.0	<2.0	<2.0	<2.0
Xylenes	<11	<11	<11	<11	<11	<11
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (μg/L)						
TPH	1,140	536	554	271	295	289

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 7 of 10)

Well Number	231GW03			231GW04			231GW05		
Sample Date	10-17-91	12-05-91	03-06-92	10-23-91	12-03-91	03-04-92	10-23-91	12-05-91	03-04-92
VOLATILE ORGANICS (μg/L)									
Acetone	<17	<17	<17	<17	<17	<17	<17	<17	<17
Benzene	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
Ethylbenzene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylethyl ketone	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2
Methyl-n-butyl ketone	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Toluene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes	<11	<11	<11	<11	<11	31	<11	<11	<11
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (μg/L)									
TPH	241	449	413	813	1,100	727	662	249	<200

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 8 of 10)

Well Number	231GW06			231GW07			231GW08		
Sample Date	10-22-91	12-03-91	03-03-92	10-22-92	12-04-91	03-03-92	10-30-91	12-03-91	03-04-92
VOLATILE ORGANICS (μg/L)									
Acetone	<17	<17	<17	<17	<17	<17	<17	<17	<17
Benzene	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
Ethylbenzene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylethyl ketone	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2
Methyl-n-butyl ketone	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Toluene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes	<11	<11	<11	<11	<11	<11	<11	<11	<11
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (μg/L)									
TPH	<200	295	<200	412	262	<200	<200	<200	<200

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 9 of 10)

Well Number	231GW09			231GW10			231GW11		
Sample Date	10-18-91	12-04-91	03-04-92	10-21-91	12-02-91	03-03-92	10-18-91	12-03-91	03-06-92
VOLATILE ORGANICS (μg/L)									
Acetone	<17	<17	<17	<17	<17	22	<17	<17	<17
Benzene	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
Ethylbenzene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylethyl ketone	<6.2	13	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2	<6.2
Methyl-n-butyl ketone	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Toluene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes	<11	<11	<11	<11	<11	<11	<11	<11	<11
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (μg/L)									
TPH	2020	<200	<200	1,110	858	<200	4,600	<200	<206

< = less than certified reporting limit
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-9 Summary of Groundwater Sample Detections, Building 231, IRA (page 10 of 10)

Well Number	231GW12			231GWIN02		
Sample Date	10-22-91	12-03-91	03-03-92	10-29-91	12-03-91	03-04-92
VOLATILE ORGANICS (μg/L)						
Acetone	<17	<17	<17	<17	<17	45
Benzene	<2.8	<2.8	<2.8	170	110	300
Ethylbenzene	<2.0	<2.0	<2.0	75	<2.0	67
Methylethyl ketone	<6.2	<6.2	<6.2	<6.2	8.4	7.1
Methyl-n-butyl ketone	<4.8	<4.8	<4.8	18	16	<4.8
Toluene	<2.0	<2.0	<2.0	600	200	29
Xylenes	<11	<11	<11	1,000	680	160
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (μg/L)						
TPH	2,390*	295	<200	1,820	7,220	2,030

< = less than certified reporting limit
* = TPH sampled 10-21-92
TPH = total recoverable petroleum hydrocarbons - Method 418.1

Table 8.2-10 Summary of Discrete Groundwater Sample Detections, Former UST Site, Building 231, Follow-on RI (page 1 of 1)

Sample ID	231SB15	231SB15	231SB16	231SB16	231SB17	231SB17
Sample Depth (ft bgs)	6.5	10.0	15.0	27.0	19.0	30.0
Sample Date	12/06/94	12/06/94	12/07/94	12/07/94	12/07/94	12/07/94
INORGANICS (µg/L)						
Lead	66	84	54	840	13[f]	<5
VOLATILE ORGANICS (µg/L)						
Trichlorofluoromethane	<0.5	<0.5	1.5	1.2	1.1	<1
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-diesel fraction	1000	120	<50	<50	<50	<50
TPH-gas fraction	3400	1300	550	600	62	37

µg/L = microgram per Liter

< = less than reporting limit

[f] = data affected by blank contamination

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Table 8.2-11 Summary of Discrete Groundwater Sample Detections, Downgradient of Former UST Site, Building 231, Follow-on RI (page 1 of 3)

Sample ID	231SB11	231SB11	231SB12	231SB12	231SB12	231SB13	231SB13
Sample Depth (ft bgs)	18.0	30.0	7.0	14.0	29.5	15.0	26.0
Sample Date	12/08/94	12/08/94	01/05/95	01/05/95	01/05/95	12/09/94	12/09/94
INORGANICS (µg/L)							
Lead	22	10	5	<5	9	51	46
VOLATILE ORGANICS (µg/L)							
Chloroform	<0.5[p]	<0.5	<0.5	<0.5	<0.5	<0.5	1.5[p]
Trichlorofluoromethane	<1[p]	1.1[f]	<1	<1	<1	<1	<1[p]
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	820	110	<50	5700	<50	<50	<50
TPH-gas fraction	2400	1200	17	<10	16	28	32

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[p] = unreliable data

Table 8.2-11 Summary of Discrete Groundwater Sample Detections, Downgradient of Former UST Site, Building 231, Follow-on RI (page 2 of 3)

Sample ID	231SB13	231SB18	231SB18	231SB18	231SB19	231SB19	231SB19
Sample Depth (ft bgs)	31.0	8.0	14.0	24.0	8.0	15.0	29.0
Sample Date	12/09/94	01/04/95	01/04/95	01/04/95	01/04/95	01/04/95	01/04/95
INORGANICS (µg/L)							
Lead	<5	21	38	36	14	<5	23
VOLATILE ORGANICS (µg/L)							
Chloroform	1.2[p]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<1[p]	<1	<1	<1	<1	<1	<1
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	58	<50	<50	<50	<50	<50	<50
TPH-gas fraction	21	<10	<10	<10	<10	<10	<10

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[p] = unreliable data

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Table 8.2-11 Summary of Discrete Groundwater Sample Detections, Downgradient of Former UST Site, Building 231, Follow-on RI (page 3 of 3)

Sample ID	231SB20	231SB21	231SB26	231SB26	231SB26
Sample Depth (ft bgs)	24.0	26.0	46.0	66.5	80.5
Sample Date	01/12/95	01/12/95	02/23/95	02/24/95	02/24/95
INORGANICS (µg/L)					
Lead	30	17	95	85	26
VOLATILE ORGANICS (µg/L)					
Chloroform	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/L)					
TPH-diesel fraction	<50	<50	400	350	330
TPH-gas fraction	33[f]	13[f]	58	31	<10

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[p] = unreliable data

Table 8.2-12 Summary of Groundwater Sample Detections, Building 231 Area, Follow-on RI (page 1 of 1)

Sample ID	231GW13	231GW15	231GW17	231GW18	231GW19	231GW20	231GW21
Sample Depth (ft bgs)	41.0	15.0	30.0	15.0	7.5	35.0	7.5
Sample Date	04/10/95	04/07/95	04/10/95	04/10/95	04/10/95	04/11/95	04/12/95
INORGANICS (µg/L)							
Calcium	3000	34000	13000	22000	49000	13000	82000
Iron	2000	500	1700	2200	9200	1600	3200
Magnesium	5000	41000	37000	46000	50000	42000	69000
Potassium	8000	11000	3000	2000	6000	1000	7000
Sodium	260000	60000	35000	52000	72000	43000	73000
Lead	<5	<5	<5	<5	<5	7	<5
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	466000	272000	190000	232000	478000	224000	58800
Bicarbonate Alkalinity	461000	269000	189000	23100	477000	223000	584000
Carbonate Alkalinity	4640	49.3	1410	906	1210	1050	4070
Hydroxide Alkalinity	53.5	2510	39.7	20.8	13.4	25	37.1
Chloride	72100[a]	58800[a]	30500[a]	50200[a]	32400[a]	53400	49500[a]
Nitrate	<200	<200	6830	6910	357	1560	<200
Sulfate	<5000	9980	38500	58900	41600	22900	7130
Total Dissolved Solids	920000	790000	410000[f]	500000[f]	650000[f]	350000	470000
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	<50	<50	<50	<50	<50	100	4700
TPH-gas fraction	<10	13	<10	<10	<10	<10	3300

µg/L = microgram per Liter

< = less than reporting limit

[a] = diluted sample

[f] = data affected by blank contamination

Table 8.2-13 Summary of Detections, Tank Samples, Building 231 Area, IRA

Sample ID Sample Date	231TK01 10/28/91	228TK02 10/30/91
ORGANICS (μg/g)		
Benzene	6,000	<200
Chloromethane	500	<500
Toluene	20,000	700
Ethylbenzene	10,000	300
Xylenes, (total)	30,000	1,000
TPH	1,000,000	1,000,000
PHYSICAL PROPERTIES		
Specific gravity	0.786	0.7686
Viscosity, cSt		
15°C	0.752	0.99
18°C	0.758	0.93

μg/g = micrograms per gram
cSt = centistokes
< = less than practical quantitation limit

Note: Differences between IRDMIS database and above values are due to rounding criteria 7 USATHAMA QAP, 1990.

Table 8.3-1 Summary of Sediment Sample Detections, Building 1057 Site, Follow-on RI (page 1 of 2)

Sample ID	1057SE01
Sample Depth (ft bgs)	0.0
Sample Date	12/01/94
INORGANICS (µg/g)	
Aluminum	9910
Antimony	0.215[a]
Arsenic	3.70[a]
Barium	97.2
Beryllium	0.222
Cadmium	6.14
Calcium	9810
Chromium	33.6
Cobalt	13.9
Copper	67.6
Cyanide	0.626[f]
Iron	25200
Lead	436
Magnesium	3560
Manganese	254
Mercury	2.86[a]
Nickel	22.6
Potassium	582
Silver	1.69
Sodium	609
Vanadium	27.7
Zinc	2570
VOLATILE ORGANICS (µg/g)	
No detections above reporting limit	
SEMIVOLATILE ORGANICS (µg/g)	
Bis(2-ethylhexyl) phthalate	15.8[a]
Butylbenzylphthalate	28.4[a]
Di-n-butylphthalate	12.3[a]
TOTAL PETROLEUM HYDROCARBONS (µg/g)	
TPH-diesel fraction	12.2

µg/L = microgram per Liter

[a] = diluted sample

[f] = data affected by blank contamination

Table 8.3-1 Summary of Sediment Sample Detections, Building 1057 Site, Follow-on RI (page 2 of 2)

Sample ID	1057SE01
Sample Depth (ft bgs)	0.0
Sample Date	12/01/94

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter

[a] = diluted sample

[f] = data affected by blank contamination

Table 8.3-2 Summary of Soil Boring Sample Detections, Building 1057 Site, Follow-on RI (page 1 of 1)

Sample ID	1057SB01
Sample Depth (ft bgs)	3.0
Sample Date	12/01/94
INORGANICS (µg/g)	
Aluminum	12600
Antimony	0.154[a]
Arsenic	4.24[a]
Barium	71.7
Beryllium	0.442
Calcium	2320
Chromium	71.5
Cobalt	12.9
Copper	35.6
Cyanide	0.566[f]
Iron	18200
Lead	4.71
Magnesium	3140
Manganese	310
Nickel	41.0
Potassium	515
Sodium	109
Vanadium	50.4
Zinc	50.8
VOLATILE ORGANICS (µg/g)	
No detections above reporting limit	
SEMIVOLATILE ORGANICS (µg/g)	
Bis(2-ethylhexyl) phthalate	0.194
Di-n-butylphthalate	0.109
TOTAL PETROLEUM HYDROCARBONS (µg/g)	
TPH-diesel fraction	
No detections above reporting limit	
TPH-gas fraction	
No detections above reporting limit	

µg/g = microgram per gram

[a] = diluted sample

[f] = data affected by blank contamination

Table 8.4-1 Summary of Soil Boring Sample Detections, Building 1065 Site, Follow-on RI (page 1 of 2)

Sample ID	1065SB01	1065SB01	1065SB01	1065SB02	1065SB02	1065SB02	1065SB03
Sample Depth (ft bgs)	0.5	5.0	10.0	0.5	5.0	10.0	0.5
Sample Date	12/15/94	12/15/94	12/15/94	12/14/94	12/14/94	12/14/94	12/14/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	<25	324	<25	<25	52.4
Lead	NA	NA	6.6	NA	NA	4.93	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<9.6	<9.9	<98[a]	<10	<9.8	<10	<10
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 8.4-1 Summary of Soil Boring Sample Detections, Building 1065 Site, Follow-on RI (page 2 of 2)

Sample ID	1065SB03	1065SB03	1065SB04	1065SB04
Sample Depth (ft bgs)	5.0	10.0	0.5	5.0
Sample Date	12/14/94	12/14/94	01/12/95	01/12/95
INORGANICS (µg/g)				
Lead-XRF	48	<25	<25	<25
Lead	NA	NA	NA	4.12
TOTAL PETROLEUM HYDROCARBONS (µg/g)				
TPH (immunoassay)	>100[a]	<10	<10	<99[a]
TPH-diesel fraction				
No detections above reporting limit				
TPH-gas fraction				
No detections above reporting limit				

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

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Table 8.4-2 Summary of Discrete Groundwater Sample Detections, Building 1065 Site, Follow-on RI (page 1 of 4)

Sample ID	1065SB01	1065SB02	1065SB02	1065SB04	1065SB04	1065SB04	1065SB05
Sample Depth (ft bgs)	5.0	7.0	10.5	15.0	20.0	30.0	10.0
Sample Date	12/15/94	12/15/94	12/14/94	01/11/95	01/11/95	01/12/95	01/12/95
INORGANICS (µg/L)							
Lead	12000	NA	6[n]	<5	17	13	52
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	<50	<50	NA	3200[p]	110[p]	<50	<50
TPH-gas fraction	<10	NA	34	11	<10	<10	17[f]

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[n] = estimated value
[p] = [illegible]ble data

Table 8.4-2 Summary of Discrete Groundwater Sample Detections, Building 1065 Site, Follow-on RI (page 2 of 4)

Sample ID	1065SB05	1065SB05	1065SB06	1065SB06	1065SB06	1065SB07	1065SB07
Sample Depth (ft bgs)	20.0	30.0	10.0	20.0	30.0	7.0	18.5
Sample Date	01/12/95	01/12/95	01/13/95	01/13/95	01/13/95	01/13/95	01/13/95
INORGANICS (µg/L)							
Lead	<5	33	<5	<5	290	9	35
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	2700	<50	1500	790	820	<50	<50
TPH-gas fraction	15[f]	13[f]	11	<10	12	<10	<10

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 8.4-2 Summary of Discrete Groundwater Sample Detections, Building 1065 Site, Follow-on RI (page 3 of 4)

Sample ID	1065SB07	1065SB08	1065SB08	1065SB08	1065SB08	1065SB09	1065SB09
Sample Depth (ft bgs)	28.5	10.0	20.0	30.0	40.0	15.0	21.5
Sample Date	01/13/95	04/07/95	04/07/95	04/07/95	04/12/95	04/11/95	04/11/95
INORGANICS (µg/L)							
Lead	5	5	29	64	<5	7	<5
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	<50	<50	110	150	200	66	250
TPH-gas fraction	<10	12	15	<10	10	<10	<10

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[n] = estimated value
[p] = [illegible] data

Table 8.4-2 Summary of Discrete Groundwater Sample Detections, Building 1065 Site, Follow-on RI (page 4 of 4)

Sample ID	1065SB09	1065SB09
Sample Depth (ft bgs)	30.0	40.0
Sample Date	04/12/95	04/12/95
INORGANICS (µg/L)		
Lead	<5	<5
TOTAL PETROLEUM HYDROCARBONS (µg/L)		
TPH-diesel fraction	140	460
TPH-gas fraction	<10	19

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 8.5-1 Summary of Soil Boring Sample Detections, Building 1167 Site, Follow-on RI (page 1 of 4)

Sample ID	1167SB01	1167SB02	1167SB02	1167SB02	1167SB02	1167SB03	1167SB03
Sample Depth (ft bgs)	0.5	0.5	1.0	6.0	6.5	0.5	5.0
Sample Date	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94
INORGANICS (µg/g)							
Aluminum	9170	10400	NA	NA	16500	8670	29400
Arsenic	1.99 [an]	4.55 [an]	NA	NA	3.67 [an]	5.04 [an]	11.2 [an]
Barium	48.9	92.0	NA	NA	31.8	27.4	162
Beryllium	0.331	0.217	NA	NA	0.389	0.346	0.592
Cadmium	<0.800	<0.800	NA	NA	<0.800	1.65	<0.800
Calcium	1340	74300[a]	NA	NA	1790	4590	19400
Chromium	37.6	35.6	NA	NA	66.2	44.6	23.2
Cobalt	9.23	7.46	NA	NA	9.76	12.8	38.6
Copper	33.9	80.9	NA	NA	19.7	65.4	88.0
Cyanide	0.482	<0.250	NA	NA	<0.250	<0.250	0.465
Iron	11900	9790	NA	NA	15800	18300	80900[a]
Lead	16.4	7.10	NA	NA	17.6	586	149
Magnesium	3260	8390	NA	NA	5880	3560	14800
Manganese	196	194	NA	NA	162	871	1770
Mercury	0.253[a]	0.356[a]	NA	NA	<0.0590	1.04[a]	0.134
Nickel	40.3	47.2	NA	NA	64.7	38.4	32.5
Potassium	1100	437	NA	NA	1740	665	404
Selenium	1.80[a]	5.15[a]	NA	NA	4.24[a]	4.52[a]	5.37[a]
Sodium	229	145	NA	NA	671	184	194
Vanadium	28.0	26.0	NA	NA	37.4	36.8	176
Zinc	45.6	94.6	NA	NA	47.5	897	47.7
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	1300	9920	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 8.5-1 Summary of Soil Boring Sample Detections, Building 1167 Site, Follow-on RI (page 2 of 4)

Sample ID	1167SB01	1167SB02	1167SB02	1167SB02	1167SB02	1167SB03	1167SB03
Sample Depth (ft bgs)	0.5	0.5	1.0	6.0	6.5	0.5	5.0
Sample Date	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94

VOLATILE ORGANICS (µg/g)

No detections above reporting limit

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 8.5-1 Summary of Soil Boring Sample Detections, Building 1167 Site, Follow-on RI (page 3 of 4)

Sample ID	1167SB03
Sample Depth (ft bgs)	10.0
Sample Date	11/19/94
INORGANICS (µg/g)	
Aluminum	11200
Arsenic	5.96 [an]
Barium	17.7
Beryllium	0.297
Cadmium	<0.800
Calcium	2420
Chromium	46.2
Cobalt	9.05
Copper	14.0
Cyanide	<0.250
Iron	14300
Lead	4.18
Magnesium	6320
Manganese	127
Mercury	<0.0590
Nickel	39.7
Potassium	1720
Selenium	4.29[a]
Sodium	265
Vanadium	30.1
Zinc	38.0
MISCELLANEOUS PARAMETERS (µg/g)	
Total Organic Carbon	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 8.5-1 Summary of Soil Boring Sample Detections, Building 1167 Site, Follow-on RI (page 4 of 4)

Sample ID	1167SB03
Sample Depth (ft bgs)	10.0
Sample Date	11/19/94

VOLATILE ORGANICS (µg/g)

No detections above reporting limit

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[n] = estimated value

Table 8.6-1 Summary of Soil Sample Detections, Building 1151 Site, Initial RI

Sample ID	1151SO01	1151SO02	1151SO03
Sample Depth (ft bgs)	0.8	0.8	0.6
Sample Date	12/06/90	12/06/90	12/06/90
PCBs* (μg/g)			
PCB 1260	5.3[a]	11[a]	GT 2.00

μg/g = micrograms per gram
GT = greater than upper certified range
[a] = diluted sample
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 8.6-2 Summary of Soil Boring Sample Detections, Building 1151 Site, Follow-on RI (page 1 of 1)

Sample ID	1151SB01	1151SB01	1151SB02	1151SB02
Sample Depth (ft bgs)	0.5	1.9	0.5	1.8
Sample Date	12/06/94	12/06/94	12/06/94	12/06/94
INORGANICS (µg/g)				
Aluminum	14000	12800	11400	15500
Arsenic	3.12[a]	<2.50[a]	3.27[a]	3.30[a]
Barium	107	84.2	129	92.3
Beryllium	0.460	0.405	0.420	0.491
Calcium	4810	6710	8840	3850
Chromium	91.0	95.0	54.0	81.9
Cobalt	15.6	15.2	13.9	15.2
Copper	29.1	39.3	35.7	24.0
Cyanide	<0.250	0.599	0.282	0.443
Iron	18600	17600	17000	19000
Lead	31.4	81.2	35.6	17.5
Magnesium	4660	5810	3990	4290
Manganese	390	349	389	362
Mercury	0.0769	0.103	0.0677	0.0750
Nickel	63.3	63.8	41.3	54.1
Potassium	743	1030	770	833
Sodium	106	115	112	102
Vanadium	54.8	54.5	46.3	53.7
Zinc	82.4	139	50.1	61.7

VOLATILE ORGANICS (µg/g)

No detections above reporting limit

µg/g = microgram per gram
< = less than reporting limit
[a] = diluted sample

Table 9.0-1 Summary of Fill Sites and Landfills

Current Name	Previous Name	Approximate Dates of Activity	Historical Uses	Approximate Surface Area of Site (ac)	Approximate Debris Fill Volume (yd^3)	Approximate Landfill Material Volume (yd^3)
Fill Site 1	Landfill 1	1948-1981	Debris fill deposited in topographic low.	2.4	44,000	none encountered
Landfill 2	Landfill 2	Pre-1946-1981, 1987	Disposal of landfill and debris fill materials.	1.1	6,000	8,000
Transfer Station	Landfill 3	1983-1994	Solid waste transfer station.	1.0	2,000	none encountered
Landfill 4	Landfill 4	1946(?)-1981	Landfill material and debris fill placed in valley bottom.	0.8	4,000	2,000
Fill Site 5	Landfill 5	1946-1981	Debris fill placed in ravine; building later constructed on site.	0.8	4,000	none encountered
Fill Site 6	Landfill 6	1975-1976	Burial of construction debris from building demolished on site.	1.3	8,000	none encountered
Graded Area 9	Landfill 9	1958, 1963, 1988	Clean fill placed to level area for recreational use.	2.3	2,000	none encountered
Landfill E	Disturbed Area E	1946-1973	Debris fill and landfill material deposited in low drainage.	3.8	45,000	31,000

Table 9.1-1 Summary of Surface Soil Sample Detections, Fill Site 1, Initial RI

Sample ID	LF1SS01*	LF1SS02
Sample Date	09/27/90	09/27/90
INORGANICS (μg/g)		
Aluminum	16,300	NA
Arsenic	2.74	NA
Barium	120	NA
Beryllium	0.495	NA
Calcium	8,490	NA
Chromium	106	NA
Cobalt	16.3	NA
Copper	24.4	NA
Iron	28,200	NA
Lead	40.4	NA
Magnesium	11,700	NA
Manganese	700	NA
Mercury	0.132	NA
Nickel	113	NA
Potassium	1,850	NA
Sodium	176	NA
Vanadium	60.6	NA
Zinc	68.7	NA
VOLATILE ORGANICS		
	NA	ND
SEMIVOLATILE ORGANICS (μg/g)		
Bis(2-ethylhexyl)phthalate	GT6.2	NA

μg/g = micrograms per gram
GT = greater than upper certified reporting limit
NA = not analyzed
ND = no detections above certified reporting limit
* = composite sample

Table 9.1-2 Summary of Test Pit Soil Sample Detections, Fill Site 1 and Landfill 2, Initial RI

Sample ID	LF1TP01	LF1TP02	LF1TP03	LF2TP01	LF2TP02	LF2TP03
Sample Depth (ft bgs)	7.0	2.5	3.0	7.0	5.0	4.0
Sample Date	09/26/90	09/26/90	09/26/90	10/01/90	10/01/90	10/01/90
INORGANICS (μg/g)						
Aluminum	33,900	11,000	22,600	12,000	13,500	16,400
Antimony	<19.6	<19.6	<19.6	<19.6	164	<19.6
Arsenic	4.80	3.27	3.31	3.90	3.67	<2.50
Barium	534	84.2	243	668	796	132
Beryllium	0.867	<0.427	0.555	<0.427	<0.427	<0.427
Calcium	20,400	8,090	7,820	16,900	27,400	5,570
Chromium	487	113	151	80.8	59.5	69.1
Cobalt	47.5	12.8	21.2	11.8	14.4	12.1
Copper	47.5	13.8	46.3	308	250	27.7
Cyanide	<0.250	<0.250	<0.250	0.411	0.789	<0.250
Iron	49,700	20,900	33,900	28,400	27,600	25,700
Lead	24.4	101	71.7	875	12,000[a]	92.6
Magnesium	90,000[a]	10,500	14,800	4,710	4,720	4,720
Manganese	748	261	879	478	739	359
Mercury	0.275	0.188	0.073	0.304	0.881	0.116
Nickel	642	97.2	154	72.0	94.3	51.5
Potassium	3,580	1,170	3,550	1,460	1,520	1,380
Silver	<0.803	<0.803	<0.803	11.3	20.2	<0.803
Sodium	165	189	215	1,190	992	162
Vanadium	76.3	43.9	63.5	49.7	45.7	52.6
Zinc	65.3	103	64.8	1,020	976	301
VOLATILE ORGANICS						
No detections above certified reporting limit						
SEMIVOLATILE ORGANICS (μg/g)						
Benzo[a]anthracene	<0.041	<0.041	<0.041	<0.041	<0.041	0.081
Chrysene	<0.032	<0.032	<0.032	<0.032	<0.032	0.091
Fluoranthene	<0.032	0.050	<0.032	0.043	0.099	0.24
Phenanthrene	0.18	<0.032	<0.032	<0.032	<0.032	0.38
Pyrene	<0.083	<0.083	<0.083	<0.083	<0.083	0.18

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample

Table 9.1-3 Summary of Soil Boring Sample Detections, Fill Site 1 and Landfill 2, Supplemental RI (page 1 of 3)

Sample ID	LF1SB01	LF1SB01	LF2SB01	LF2SB01	LF2SB02	LF2SB02
Sample Depth (ft bgs)	3.0	22.5	3.0	6.5	3.0	23.0
Sample Date	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92
INORGANICS (μg/g)						
Aluminum	18000.000[a]	13000.000[a]	11000.000[a]	12000.000[a]	7000.000[a]	13000.000[a]
Arsenic	9.590	3.790	3.950	3.400	3.020	2.730
Barium	75.200	40.900	142.000	128.000	92.100	60.500
Beryllium	0.816	<0.500	<0.500	<0.500	<0.500	<0.500
Calcium	8700.000[a]	2570.000	7200.000[a]	2610.000	7000.000[a]	2920.000
Chromium	52.500	96.200	84.000	106.000	47.200	295.000
Cobalt	16.600	14.500	13.600	20.800	11.200	33.800
Copper	39.400	10.400[f]	37.200	16.300	23.900	19.900
Iron	32000.000[a]	25000.000[a]	23000.000[a]	21000.000[a]	16000.000[a]	29000.000[a]
Lead	20.000[a]	3.760	170.000[a]	6.310	35.000[a]	5.550
Magnesium	8800.000[a]	3760.000	3990.000	2430.000	3170.000	13000.000[a]
Manganese	448.000	376.000	340.000[f]	618.000	500.000	323.000[f]
Mercury	0.097	<0.027	0.056	<0.027	0.034	0.067
Nickel	51.000	106.000	57.400	60.500	43.600	414.000
Potassium	2150.000	424.000	1160.000	1060.000	922.000	582.000
Selenium	1.260	0.546	0.638	0.987	0.446	0.817
Sodium	283.000	187.000	177.000	154.000	147.000	822.000
Thallium	25.700[k]	<14.700	<14.700	<14.700	<14.700	24.000[k]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.1-3 Summary of Soil Boring Sample Detections, Fill Site 1 and Landfill 2, Supplemental RI (page 2 of 3)

Sample ID	LF1SB01	LF1SB01	LF2SB01	LF2SB01	LF2SB02	LF2SB02
Sample Depth (ft bgs)	3.0	22.5	3.0	6.5	3.0	23.0
Sample Date	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92
INORGANICS (μg/g)						
Vanadium	68.700	61.100	64.200	57.500	39.100	48.000
Zinc	73.900	32.000	148.000	32.400	52.000	43.700
VOLATILE ORGANICS						
No detections above certified reporting limit						
SEMIVOLATILE ORGANICS (μg/g)						
Benzo(k)fluoranthene	<0.033	<0.033	0.039	<0.033	<0.200[a]	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.1-3 Summary of Soil Boring Sample Detections, Fill Site 1 and Landfill 2, Supplemental RI (page 3 of 3)

Sample ID	LF1SB01	LF1SB01	LF2SB01	LF2SB01	LF2SB02	LF2SB02
Sample Depth (ft bgs)	3.0	22.5	3.0	6.5	3.0	23.0
Sample Date	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92
ORGANOCHLORINE PESTICIDES						
No detections above method detection limit						
POLYCHLORINATED BIPHENYLS						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	9.000	1.000	8.000	3.000	100.000[a]	1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.1-4 Summary of Soil Boring Sample Detections Associated with Test Pits LF2TP01 and LF2TP02, Landfill 2, Follow-on RI (page 1 of 2)

Sample ID	LF2SB03	LF2SB04	LF2SB04	LF2SB04	LF2SB05	LF2SB05	LF2SB05
Sample Depth (ft bgs)	8.0	0.0	5.0	10.0	0.0	4.7	8.0
Sample Date	12/15/94	12/15/94	01/05/95	01/05/95	12/15/94	12/15/94	12/15/94
INORGANICS (µg/g)							
Lead-XRF	331	451	129	<25	110	<25	69.8
Lead	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	5320	1070	5480

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 9.1-4 Summary of Soil Boring Sample Detections Associated with Test Pits LF2TP01 and LF2TP02, Landfill 2, Follow-on RI (page 2 of 2)

Sample ID	LF2SB06	LF2SB06	LF2SB06	LF2SB06	LF2SB07	LF2SB07	LF2SB07
Sample Depth (ft bgs)	0.0	4.7	9.7	18.0	0.0	5.0	19.0
Sample Date	12/15/94	12/15/94	12/15/94	04/10/95	04/10/95	04/10/95	04/10/95
INORGANICS (µg/g)							
Lead-XRF	45.2	904	2090	NA	NA	NA	NA
Lead	NA	NA	NA	2.97	192	253	4.2
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 9.1-5 Summary of Soil Boring Sample Detections, Landfill 2, Follow-on RI (page 1 of 2)

Sample ID	LF2SS01	LF2SS02	LF2SS03	LF2SS04	LF2SS05
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0
Sample Date	12/14/94	12/14/94	12/14/94	12/14/94	12/14/94
INORGANICS (µg/g)					
Aluminum	9040	8330	7780	7550	6180
Barium	407	1040	410	88.9	78.8
Beryllium	0.353	0.390	0.485	0.313	0.300
Calcium	20200	4680	6320	3800	3590
Chromium	53.4	43.1	65.9	52.0	49.0
Cobalt	12.0	13.9	13.3	9.46	8.59
Copper	65.5	44.9	202	26.3	12.0
Iron	16400	4000	19000	14100	12900
Lead	200	77.0	353	69.4	52.9
Magnesium	5420	3450	4330	2760	2920
Manganese	384	423	381	340	234
Mercury	0.0690	0.0819	0.153	0.0957	<0.0590
Nickel	73.9	46.0	117	40.2	40.5
Potassium	977	671	874	836	829
Silver	1.48	<0.400	1.57	<0.400	<0.400
Sodium	209	754	217	124	72.0
Vanadium	45.9	38.9	159	38.6	36.4
Zinc	247	87.8	626	123	72.6
VOLATILE ORGANICS (µg/g)					
No detections above reporting limit					
SEMIVOLATILE ORGANICS (µg/g)					
Bis(2-ethylhexyl) phthalate	<0.625[a]	0.125[f]	<0.625[a]	0.172[f]	0.162[f]
Chrysene	<0.625[a]	<0.0625	0.954[a]	<0.0625	<0.0625
Fluoranthene	<0.550[a]	<0.0550	1.72[a]	0.0789	<0.0550
Phenanthrene	<1.35[a]	<0.135	2.77[a]	<0.135	<0.135
Pyrene	<0.475[a]	<0.0475	1.84[a]	0.104	<0.0475
ORGANOCHLORINE PESTICIDES (µg/g)					
ppDDT	2.30[c]	1.15[c]	3.04[c]	<0.0071	<0.0071
CHLORINATED HERBICIDES (µg/g)					
MCPP	3.63	4.85	<0.0196	<0.0196[p]	<0.0196[p]

µg/g = microgram per gram
< = less than reporting limit
[a] = diluted sample
[c] = confirmed detection
[f] = data affected by blank contamination
[p] = unreliable data

Table 9.1-5 Summary of Soil Boring Sample Detections, Landfill 2, Follow-on RI (page 2 of 2)

Sample ID	LF2SS01	LF2SS02	LF2SS03	LF2SS04	LF2SS05
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0	0.0
Sample Date	12/14/94	12/14/94	12/14/94	12/14/94	12/14/94
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH-diesel fraction					
No detections above reporting limit					
TPH-gas fraction					
No detections above reporting limit					

µg/g = microgram per gram
< = less than reporting limit
[a] = diluted sample
[c] = confirmed detection
[f] = data affected by blank contamination
[p] = unreliable data

Table 9.1-6 Summary of Groundwater Sample Detections, Fill Site 1 and Landfill 2, Initial RI

Sample ID Sample Date	LF1GW01 11/30/90	LF1GW02 11/30/90	LF1GW03 12/07/90	LF1GW04 12/07/90	LF1GW05 11/29/90	LF2GW01 11/28/90	LF2GW02 11/29/90
INORGANICS: filtered, except for cyanide (μg/L)							
Arsenic	<2.35	<2.35	<2.35	<2.35	<2.35	<2.35	2.66
Barium	77.7	32.1	43.8	27.7	42.8	19.3	91.6
Boron	NA	NA	346[1]	<230[1]	NA	NA	NA
Calcium	40,700	28,400	23,200	40,100	34,000	13,600	27,800
Chromium	<16.8	21.5	42.3	18.1	<16.8	<16.8	<16.8
Copper	<18.8	<18.8	<18.8	25.5	<18.8	<18.8	<18.8
Magnesium	36,300	73,100	85,100	51,500	52,800	49,900	96,900
Manganese	162	<9.67	<9.67	<9.67	<9.67	<9.67	164
Potassium	11,200	1,840	2,020	<1,240	<1,240	<1,240	<1,240
Selenium	<2.53	<2.53	4.82	4.82	3.11	<2.53	<2.53
Sodium	31,600	45,900	53,000[a]	39,500	40,400	27,500	51,700
Zinc	<18.0	<18.0	<18.0	23.4	<18.0	<18.0	<18.0
MISCELLANEOUS PARAMETERS (μg/L)							
Alkalinity/Bicarbonate	262,000*	415,000*	480,000 366,000*	300,000 217,000*	260,000[a] 336,000*	220,000[a] 239,000*	440,000[a] 430,000*
Chloride	43,000[a]	64,000[a]	81,000[a]	51,000[a]	49,000[a]	54,000[a]	110,000[a]
Fluoride	618	800	821	596	655	485	925
Nitrate	11,000[a]	8,300[a]	18,000[a]	34,000[a]	1,300[a]	1,300[a]	280[a]
Sulfate	42,000[a]	49,000[a]	40,000[a]	56,000[a]	66,000[a]	19,000[a]	55,000[a]
VOLATILE ORGANICS (μg/L)							
Acetone	49	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
SEMIVOLATILE ORGANICS							
No detections above certified reporting limit							
PESTICIDES							
No detections above certified reporting limit							

μg/L = micrograms per liter
< = less than certified reporting limit
NA = not analyzed
* = calculated from field titration results
[a] = diluted sample
[1] = not requested; additional data supplied by lab

Table 9.1-7 Summary of Groundwater Sample Detections, Fill Site 1 and Landfill 2, Supplemental RI (page 1 of 3)

Sample ID Sample Date	EPSSW01 09/04/92	LF1GW01 08/26/92	LF1GW02 08/26/92	LF1GW03 09/10/92	LF1GW04 09/10/92	LF1GW05 09/10/92	LF1GW06 08/28/92	LF2GW01 08/28/92	LF2GW02 09/04/92
INORGANICS: filtered, except for cyanide and mercury (μg/L)									
Aluminum	484.000	<141.000	<141.000	<141.000	<141.000	<141.000	<141.000	<141.000	<141.000
Arsenic	<2.540	<2.540	<2.540	5.860	3.940	<2.540	4.690	4.690	3.200
Barium	70.900	173.000	39.900	81.600	33.700	79.400	28.600	43.900	153.000
Cadmium	<4.010	<4.010	<4.010	<4.010	<4.010	<4.010	4.710	45.000	<4.010
Calcium	13500.000	57700.000	26700.000	19300.000	40100.000	33500.000	33200.000	14000.000	27000.000
Chromium	44.800	<6.020	15.800	30.200	17.300	11.900	15.600	11.100	<6.020
Copper	<8.090	9.530	<8.090	<8.090	<8.090	<8.090	<8.090	<8.090	<8.090
Iron	1760.000	<38.800	<38.800	<38.800	<38.800	<38.800	<38.800	<38.800	<38.800
Lead	4.340	<1.260	8.030	<1.260	1.630	<1.260	29.800	<1.260	1.410
Magnesium	66800.000	47100.000	69800.000	82100.000	49800.000	48300.000	42200.000	47700.000	94200.000
Manganese	118.000	<2.750	<2.750	3.480	6.190	<2.750	81.400	8.390	253.000
Mercury	<0.500	<0.500	<0.500	0.552	<0.500	<0.500[d]	<0.500	<0.500	<0.500
Nickel	36.300[d]	<34.300	<34.300	<34.300	<34.300	13.800[d]	<34.300	<34.300	<34.300
Potassium	<375.000	11100.000	1130.000	1270.000	1160.000	<375.000	2550.000	2260.000	<375.000
Selenium	<3.020	<3.020	<3.020	<3.020	<3.020	<3.020	<3.020	8.520	<3.020
Sodium	30700.000	41200.000	49000.000	55300.000	42300.000	44400.000	33400.000	26900.000	51900.000
Vanadium	<11.000	<11.000	20.100	16.400[d]	<11.000	<11.000	14.100	13.400	21.400
Zinc	<21.100	<21.100	<21.200[d]	<11.200[d]	<21.100	<21.100	57.200	<21.100	<21.100

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
NA = not analyzed
[a] = diluted sample
[d] = estimated value - below certified reporting limit
[f] = data affected by blank contamination

Table 9.1-7 Summary of Groundwater Sample Detections, Fill Site 1 and Landfill 2, Supplemental RI (page 2 of 3)

Sample ID Sample Date	EPSSW01 09/04/92	LF1GW01 08/26/92	LF1GW02 08/26/92	LF1GW03 09/10/92	LF1GW04 09/10/92	LF1GW05 09/10/92	LF1GW06 08/28/92	LF2GW01 08/28/92	LF2GW02 09/04/92
MISCELLANEOUS PARAMETERS (μg/L)									
Alkalinity									
Total	243000.000	319000.000	379000.000	345000.000	215000.000	243000.000	195000.000	190000.000	330000.000
Bicarbonate	240000.000	262000.000	311000.000	342000.000	214000.000	241000.000	193000.000	189000.000	325000.000
Carbonate	<2500.000	<2500.000	<2500.000	3360.000	<2500.000	<2500.000	<2500.000	<2500.000	4840.000
Hydroxide	48.000	17.000	29.000	52.000	29.000	28.000	67.000	39.000	79.000
Chloride	70000.000[a]	46000.000[a]	65000.000[a]	81000.000[a]	55000.000[a]	46000.000[a]	24600.000	60000.000[a]	130000.000[a]
Nitrate	1900.000[a]	2000.000[a]	7700.000[a]	4200.000[a]	10000.000[a]	1100.000[a]	9800.000[a]	1200.000[a]	25.100
Sulfate	13400.000	109000.000	39500.000	32600.000	53500.000	49500.000	47100.000	15100.000	54000.000[a]
TDS	484000.000	485000.000	463000.000	567000.000	502000.000	427000.000	461000.000	384000.000	699000.000
VOLATILE ORGANICS (μg/L)									
Methylene Chloride	<19.000	<19.000	<19.000	<19.000	89.000[f]	<19.000	<19.000	<19.000	<19.000

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
NA = not analyzed
a = diluted sample
d = estimated value - below certified reporting limit
f = data affected by blank contamination

Table 9.1-7 Summary of Groundwater Sample Detections, Fill Site 1 and Landfill 2, Supplemental RI (page 3 of 3)

Sample ID Sample Date	EPSSW01 09/04/92	LF1GW01 08/26/92	LF1GW02 08/26/92	LF1GW03 09/10/92	LF1GW04 09/10/92	LF1GW05 09/10/92	LF1GW06 08/28/92	LF2GW01 08/28/92	LF2GW02 09/04/92
SEMIVOLATILE ORGANICS (µg/L)									
Bis(2-ethylhexyl) phthalate	<1.000	<1.000	<1.000	<1.000	<1.000	1.300	<1.000	<1.000	<1.000
ORGANOCHLORINE PESTICIDES									
No detections above method detection limit									
POLYCHLORINATED BIPHENYLS									
No detections above certified reporting limit									
CHLORINATED HERBICIDES									
No detections above method detection limit									
TOTAL PETROLEUM HYDROCARBONS (µg/L)									
TPH-diesel fraction	<50.000	<50.000	<50.000	<50.000	<50.000	<50.000	<50.000	70.000	<50.000

µg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
NA = not analyzed
a = diluted sample
d = estimated value - below certified reporting limit
f = data affected by blank contamination

Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 1 of 8)

Sample ID	LF1GW01	LF1GW01	LF1GW02	LF1GW02	LF1GW03	LF1GW03	LF1GW04
Sample Depth (ft bgs)	7.0	14.0	37.0	41.0	55.0	57.0	63.0
Sample Date	01/11/95	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	01/12/95
INORGANICS (µg/L)							
Aluminum	NA	905	NA	844	NA	2770	NA
Aluminum (F)	NA	<25.0	NA	<25.0	NA	28.0	NA
Antimony	NA	<1.11	NA	3.15	NA	<1.11	NA
Antimony (F)	NA	9.20	NA	10.8	NA	14.7	NA
Arsenic	NA	<1.70	NA	2.00	NA	<1.70	NA
Arsenic (F)	NA	<1.70	NA	<1.70	NA	1.70	NA
Barium	NA	149	NA	53.0	NA	132	NA
Barium (F)	NA	142	NA	49.0	NA	113	NA
Beryllium	NA	<1.00	NA	<1.00	NA	<1.00	NA
Beryllium (F)	NA	<1.00	NA	<1.00	NA	1.00	NA
Calcium	NA	40100	NA	31300	NA	20200	NA
Calcium (F)	NA	40200	NA	31200	NA	21300	NA
Chromium	NA	5.00[f]	NA	25.0[f]	NA	73.0[f]	NA
Chromium (F)	NA	<5.00	NA	20.0	NA	46.0	NA
Chromium VI	NA	15.1	NA	32.1	NA	137	NA
Chromium VI (F)	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	<7.00	NA	<7.00	NA	<7.00	NA
Copper	NA	1.08[f]	NA	<1.00	NA	<1.00	NA
Copper (F)	NA	7.22	NA	6.37	NA	6.92	NA
Iron	NA	934[f]	NA	1190[f]	NA	5610	NA
Lead	NA	<0.735	NA	<0.735	NA	1.60	NA
Lead (F)	NA	<0.735	NA	<0.735	NA	1.55	NA
Magnesium	NA	35700	NA	77100	NA	86600	NA
Magnesium (F)	NA	35800	NA	73300	NA	86400	NA
Manganese	NA	130	NA	21.0	NA	176	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 2 of 8)

Sample ID	LF1GW01	LF1GW01	LF1GW02	LF1GW02	LF1GW03	LF1GW03	LF1GW04
Sample Depth (ft bgs)	7.0	14.0	37.0	41.0	55.0	57.0	63.0
Sample Date	01/11/95	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	01/12/95
INORGANICS (µg/L)							
Manganese (F)	NA	46.0	NA	<6.00	NA	<6.00	NA
Mercury	NA	0.200[f]	NA	0.500[f]	NA	0.300[f]	NA
Nickel	NA	17.0	NA	26.8	NA	69.6[a]	NA
Nickel (F)	NA	10.0	NA	6.00	NA	<5.00	NA
Potassium	NA	9430	NA	3620	NA	1800	NA
Potassium (F)	NA	9330	NA	2750	NA	1350	NA
Selenium	NA	<1.72	NA	<1.72	NA	2.10	NA
Sodium	NA	33200	NA	45200	NA	56200	NA
Sodium (F)	NA	31300	NA	41100	NA	57100	NA
Thallium	NA	0.945[n]	NA	<0.811	NA	<0.811	NA
Thallium (F)	NA	<0.811	NA	<0.811	NA	<0.811	NA
Vanadium	NA	4.00	NA	11.0	NA	14.0	NA
Vanadium (F)	NA	<4.00	NA	7.00	NA	5.00	NA
Zinc	NA	6.00[f]	NA	6.00[f]	NA	11.0[f]	NA
Zinc (F)	NA	9.00	NA	5.00	NA	4.00	NA
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	240000	NA	320000	NA	387000	NA
Bicarbonate Alkalinity	NA	240000[f]	NA	320000[f]	NA	387000	NA
Carbonate Alkalinity	NA	<1000	NA	<1000	NA	<1000	NA
Hydroxide Alkalinity	NA	<1000	NA	<1000	NA	<1000	NA
Chloride	NA	466000 [an]	NA	1520000 [an]	NA	1730000	NA
Nitrate	NA	5840	NA	13200	NA	5600	NA
Sulfate	NA	55100	NA	49800	NA	34500	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = e[illegible]ted value
[p] = unreliable data

Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 3 of 8)

Sample ID	LF1GW01	LF1GW01	LF1GW02	LF1GW02	LF1GW03	LF1GW03	LF1GW04
Sample Depth (ft bgs)	7.0	14.0	37.0	41.0	55.0	57.0	63.0
Sample Date	01/11/95	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	01/12/95
MISCELLANEOUS PARAMETERS (µg/L)							
Total Dissolved Solids	NA	494000[f]	NA	552000[f]	NA	548000	NA
VOLATILE ORGANICS (µg/L)							
1,2-Dichloroethane	<0.456	NA	1.12	NA	<0.456	NA	0.850
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	7.57[f]	NA	<2.34	NA	5.19[f]	NA
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 4 of 8)

Sample ID	LF1GW01	LF1GW01	LF1GW02	LF1GW02	LF1GW03	LF1GW03	LF1GW04
Sample Depth (ft bgs)	7.0	14.0	37.0	41.0	55.0	57.0	63.0
Sample Date	01/11/95	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	01/12/95

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = e[redacted]ted value
[p] = unreliable data

Table 5.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 5 of 8)

Sample ID	LF1GW04	LF1GW05	LF1GW05	LF1GW06	LF1GW06	LF1GW07
Sample Depth (ft bgs)	70.0	7.0	31.0	74.0	80.0	60.0
Sample Date	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	04/03/95
INORGANICS (µg/L)						
Aluminum	5560	NA	7870	NA	453	15600
Aluminum (F)	<25.0	NA	<25.0	NA	<25.0	<100
Antimony	<1.11	NA	1.37	NA	<1.11	<4
Antimony (F)	11.7	NA	11.5	NA	9.30	6.8[f]
Arsenic	1.79	NA	3.15	NA	<1.70	<5
Arsenic (F)	<1.70	NA	<1.70	NA	<1.70	<5[n]
Barium	62.0	NA	114	NA	49.0	78.3
Barium (F)	33.0	NA	70.0	NA	45.0	<50
Beryllium	1.00	NA	1.00	NA	<1.00	<3
Beryllium (F)	<1.00	NA	1.00	NA	<1.00	<3
Calcium	36000	NA	29300	NA	33300	52300
Calcium (F)	31000	NA	29300	NA	32600	49100
Chromium	55.0[f]	NA	59.0[f]	NA	21.0[f]	155
Chromium (F)	14.0	NA	11.0	NA	19.0	14.7
Chromium VI	82.4	NA	102	NA	31.1	<10
Chromium VI (F)	NA	NA	NA	NA	NA	80
Cobalt	8.00	NA	12.0	NA	<7.00	<30
Copper	2.99[f]	NA	8.76[f]	NA	1.18[f]	14.7
Copper (F)	3.22	NA	8.76	NA	14.7	2.4
Iron	9960	NA	10300	NA	753[f]	34000
Lead	2.01	NA	2.38	NA	1.22	<3
Lead (F)	<0.735	NA	<0.735	NA	<0.735	<3
Magnesium	46600	NA	44600	NA	44800	74400
Magnesium (F)	40800	NA	45600	NA	44900	66600
Manganese	168	NA	123	NA	15.0	539

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 6 of 8)

Sample ID	LF1GW04	LF1GW05	LF1GW05	LF1GW06	LF1GW06	LF1GW07
Sample Depth (ft bgs)	70.0	7.0	31.0	74.0	80.0	60.0
Sample Date	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	04/03/95
INORGANICS (µg/L)						
Manganese (F)	8.00	NA	<6.00	NA	<6.00	17.2
Mercury	0.600[f]	NA	0.300[f]	NA	0.300[f]	<0.2
Nickel	39.7	NA	80.4[a]	NA	5.88	286
Nickel (F)	<5.00	NA	13.9	NA	<5.00	13.5
Potassium	3030	NA	3480	NA	3550	4330
Potassium (F)	2310	NA	3270	NA	2920	3660
Selenium	<1.72	NA	<1.72	NA	<1.72	<5
Sodium	40000	NA	43700	NA	37100	51900
Sodium (F)	33600	NA	42900	NA	33700	51900
Thallium	<0.811	NA	<0.811	NA	<0.811	<2[p]
Thallium (F)	1.40	NA	<0.811	NA	<0.811	<2[n]
Vanadium	29.0	NA	27.0	NA	8.00	66.8
Vanadium (F)	4.00	NA	<4.00	NA	4.00	<25
Zinc	20.0[f]	NA	39.0[f]	NA	54.0	69.3
Zinc (F)	6.00	NA	16.0	NA	19.0	<20
MISCELLANEOUS PARAMETERS (µg/L)						
Alkalinity (Total as CaCO3)	255000	NA	262000	NA	260000	276000
Bicarbonate Alkalinity	255000[f]	NA	262000[f]	NA	260000[f]	275000
Carbonate Alkalinity	<1000	NA	<1000	NA	<1000	13.5
Hydroxide Alkalinity	<1000	NA	<1000	NA	<1000	698
Chloride	575000 [an]	NA	527000 [an]	NA	335000 [an]	48800[a]
Nitrate	10900	NA	1410	NA	10900	11900[a]
Sulfate	51800	NA	37600	NA	45300	76300[a]

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [illegible]ted value
[p] = unreliable data

Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 7 of 8)

Sample ID	LF1GW04	LF1GW05	LF1GW05	LF1GW06	LF1GW06	LF1GW07
Sample Depth (ft bgs)	70.0	7.0	31.0	74.0	80.0	60.0
Sample Date	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	04/03/95
MISCELLANEOUS PARAMETERS (µg/L)						
Total Dissolved Solids	434000[f]	NA	464000[f]	NA	418000[f]	588000
VOLATILE ORGANICS (µg/L)						
1,2-Dichloroethane	NA	1.32	NA	0.880	NA	<0.5
SEMIVOLATILE ORGANICS (µg/L)						
Bis(2-ethylhexyl) phthalate	4.60[f]	NA	5.81[f]	NA	5.27[f]	<20.8[a]
ORGANOCHLORINE PESTICIDES (µg/L)						
No detections above reporting limit						
POLYCHLORINATED BIPHENYLS (µg/L)						
No detections above reporting limit						
CHLORINATED HERBICIDES (µg/L)						
No detections above reporting limit						
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-diesel fraction						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 9.1-8 Summary of Groundwater Sample Detections, Fill Site 1, Follow-on RI (page 8 of 8)

Sample ID	LF1GW04	LF1GW05	LF1GW05	LF1GW06	LF1GW06	LF1GW07
Sample Depth (ft bgs)	70.0	7.0	31.0	74.0	80.0	60.0
Sample Date	11/08/94	01/11/95	11/08/94	01/12/95	11/08/94	04/03/95

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ted value
[p] = unreliable data

Table 9.1-9 Summary of Filtered and Unfiltered Metals Detections in Groundwater, Fill Site 1 and Landfill 2, Supplemental RI

Sample ID Sample Date	LF1GW03 09/10/92 UNFILTERED	LF1GW03 09/10/92 FILTERED	LF1GW06 08/28/92 UNFILTERED	LF1GW06 08/28/92 FILTERED	LF2GW01 08/28/92 UNFILTERED	LF2GW01 08/28/92 FILTERED
INORGANICS (μg/L)						
Aluminum	3540.000	< 141.000	9230.000	< 141.000	244.000	< 141.000
Arsenic	4.800	5.860	11.100	4.690	4.690	4.690
Barium	120.000	81.600	83.800	28.600	60.800	43.900
Cadmium < 4.010	< 4.010	5.410	4.710	34.700	45.000	
Calcium	20600.000	19300.000	36000.000	33200.000	14500.000	14000.000
Chromium	79.400	30.200	74.700	15.600	13.000	11.100
Iron	10300.000	< 38.800	21000.000	< 38.800	380.000	< 38.800
Lead	2.930	< 1.260	4.770	29.800	3.360	< 1.260
Magnesium	88000.000	82100.000	46100.000	42200.000	49100.000	47700.000
Manganese	306.000	3.480	361.000	81.400	43.100	8.390
Nickel	134.000	< 34.300	103.000	< 34.300	< 34.300	< 34.300
Potassium	1160.000	1270.000	5190.000	2550.000	2590.000	2260.000
Selenium	< 3.020	< 3.020	< 3.020	< 3.020	6.820	8.520
Sodium	58000.000	55300.000	35700.000	33400.000	28000.000	26900.000
Vanadium	26.900	16.400	45.300	14.100	13.800	13.400
Zinc	< 21.100	< 21.100	171.000	57.200	< 21.100	< 21.100

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit

Table 9.1-10 Summary of Surface-Water Sample Detections, El Polin Spring, Initial RI

Sample ID	EPSSW01
Sample Date	11/13/90
INORGANICS: filtered, except for cyanide (μg/L)	
Barium	79.5
Calcium	14,200
Chromium	27.5
Magnesium	74,200
Manganese	48.7
Mercury	0.118
Sodium	30,900
MISCELLANEOUS PARAMETERS (μg/L)	
Alkalinity/Bicarbonate	320,000*[a]
Chloride	63,000[a]
Fluoride	806
Nitrate	1,600*
Sulfate	18,000[a]
VOLATILE ORGANICS (μg/L)	
No detections above certified reporting limit	
SEMIVOLATILE ORGANICS (μg/L)	
No detections above certified reporting limit	

μg/L = micrograms per liter
* = sampled 02/06/91
[a] = diluted sample

Table 9.1-11 Summary of Surface-Water Sample Detections, El Polin Spring, Follow-on RI (page 1 of 2)

Sample ID	EPSSW01
Sample Depth (ft bgs)	0.0
Sample Date	11/09/94
INORGANICS (µg/L)	
Aluminum	467
Antimony (F)	7.10
Barium	67.0
Barium (F)	64.0
Beryllium (F)	1.00
Cadmium	4.00
Calcium	13200
Calcium (F)	14400
Chromium	36.0
Chromium (F)	19.0
Chromium VI	29.7 [n]
Copper	59.6 [an]
Copper (F)	10.4
Cyanide	9.00
Iron	1130
Iron (F)	117
Lead	3.40
Magnesium	70800
Magnesium (F)	71200
Manganese	78.0
Manganese (F)	59.0
Nickel	32.8
Nickel (F)	14.9
Potassium	913
Potassium (F)	868
Sodium	30700
Sodium (F)	30900
Vanadium	7.00
Vanadium (F)	4.00
Zinc	57.0
Zinc (F)	8.00
MISCELLANEOUS PARAMETERS (µg/L)	
Alkalinity (Total as CaCO3)	295000
Bicarbonate Alkalinity	295000

µg/L = microgram per Liter (F) = Filtered

[a] = diluted sample

[f] = data affected by blank contamination

[n] = estimated value

Sample ID	EPSSW01
Sample Depth (ft bgs)	0.0
Sample Date	11/09/94
MISCELLANEOUS PARAMETERS (µg/L)	
Chloride	85300
Nitrate	187
Sulfate	21000
Total Dissolved Solids	456000 f
SEMIVOLATILE ORGANICS (µg/L)	
Bis(2-ethylhexyl) phthalate	17.4 f
ORGANOCHLORINE PESTICIDES (µg/L)	
No detections above reporting limit	
POLYCHLORINATED BIPHENYLS (µg/L)	
No detections above reporting limit	
CHLORINATED HERBICIDES (µg/L)	
No detections above reporting limit	
TOTAL PETROLEUM HYDROCARBONS (µg/L)	
TPH-diesel fraction	
No detections above reporting limit	
TPH-gas fraction	
No detections above reporting limit	

µg/L = microgram per Liter (F) = Filtered

[a] = diluted sample

[f] = data affected by blank contamination

[n] = estimated value

Table 9.1-12 Summary of Groundwater Sample Detections, Landfill 2, Follow-on RI (page 1 of 6)

Sample ID	EPSSW01	LF2GW01	LF2GW01	LF2GW02	LF2GW02	LF2GW02	LF2GW02
Sample Depth (ft bgs)	0.0	15.0	15.0	13.0	14.0	14.0	14.0
Sample Date	01/04/95	11/09/94	01/04/95	01/04/95	11/09/94	11/09/94	11/09/94
INORGANICS (µg/L)							
Aluminum	NA	230[f]	NA	NA	2290	NA	NA
Aluminum (F)	NA	<25.0	NA	NA	<25.0	NA	NA
Antimony (F)	NA	9.50	NA	NA	5.50	NA	NA
Arsenic	NA	2.94	NA	NA	2.31	NA	NA
Arsenic (F)	NA	2.30	NA	NA	1.80	NA	NA
Barium	NA	59.0	NA	NA	214	NA	NA
Barium (F)	NA	58.0	NA	NA	202	NA	NA
Beryllium	NA	1.00[f]	NA	NA	<1.00	NA	NA
Beryllium (F)	NA	1.00	NA	NA	1.00	NA	NA
Calcium	NA	14900	NA	NA	26400	NA	NA
Calcium (F)	NA	16200	NA	NA	27500	NA	NA
Chromium	NA	13.0	NA	NA	20.0	NA	NA
Chromium (F)	NA	14.0	NA	NA	<5.00	NA	NA
Chromium VI	NA	29.9[n]	NA	NA	13.7	NA	NA
Copper	NA	1.61[f]	NA	NA	4.03[f]	NA	NA
Copper (F)	NA	5.85	NA	NA	<1.00	NA	NA
Cyanide	NA	<5.00	NA	NA	<5.00	NA	NA
Iron	NA	212	NA	NA	2550	NA	NA
Iron (F)	NA	<8.00	NA	NA	<8.00	NA	NA
Lead	NA	<0.735	NA	NA	0.851	NA	NA
Magnesium	NA	48800	NA	NA	103000	NA	NA
Magnesium (F)	NA	51600	NA	NA	96600	NA	NA
Manganese	NA	8.00	NA	NA	385	NA	NA
Manganese (F)	NA	<6.00	NA	NA	103	NA	NA
Mercury	NA	0.900[f]	NA	NA	<0.110	NA	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value

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Table 9.1-12 Summary of Groundwater Sample Detections, Landfill 2, Follow-on RI (page 2 of 6)

Sample ID	EPSSW01	LF2GW01	LF2GW01	LF2GW02	LF2GW02	LF2GW02	LF2GW02
Sample Depth (ft bgs)	0.0	15.0	15.0	13.0	14.0	14.0	14.0
Sample Date	01/04/95	11/09/94	01/04/95	01/04/95	11/09/94	11/09/94	11/09/94
INORGANICS (µg/L)							
Nickel	NA	<5.00	NA	NA	31.4	NA	NA
Nickel (F)	NA	<5.00	NA	NA	10.1	NA	NA
Potassium	NA	1410	NA	NA	3200	NA	NA
Potassium (F)	NA	1070	NA	NA	22600	NA	NA
Silver	NA	1.00	NA	NA	<2.00	NA	NA
Sodium	NA	26000	NA	NA	49400	NA	NA
Sodium (F)	NA	25900	NA	NA	48700	NA	NA
Vanadium	NA	4.00	NA	NA	9.00	NA	NA
Vanadium (F)	NA	4.00	NA	NA	<4.00	NA	NA
Zinc	NA	4.00	NA	NA	24.0	NA	NA
Zinc (F)	NA	7.00	NA	NA	<4.00	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	234000	NA	NA	418000	NA	NA
Bicarbonate Alkalinity	NA	234000	NA	NA	418000	NA	NA
Carbonate Alkalinity	NA	<1000	NA	NA	<1000	NA	NA
Hydroxide Alkalinity	NA	<1000	NA	NA	<1000	NA	NA
Chloride	NA	69400	NA	NA	152000	NA	NA
Nitrate	NA	1620	NA	NA	1560	NA	NA
Sulfate	NA	16300	NA	NA	52700	NA	NA
Total Dissolved Solids	NA	330000[f]	NA	NA	730000	NA	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = e[redacted]ed value

Table 9.1-12 Summary of Groundwater Sample Detections, Landfill 2, Follow-on RI (page 3 of 6)

Sample ID	EPSSW01	LF2GW01	LF2GW01	LF2GW02	LF2GW02	LF2GW02	LF2GW02
Sample Depth (ft bgs)	0.0	15.0	15.0	13.0	14.0	14.0	14.0
Sample Date	01/04/95	11/09/94	01/04/95	01/04/95	11/09/94	11/09/94	11/09/94
VOLATILE ORGANICS (µg/L)							
No detections above reporting limit							
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	13.3[f]	NA	NA	2.36[f]	NA	NA
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value

Table 9.1-12 Summary of Groundwater Sample Detections, Landfill 2, Follow-on RI (page 4 of 6)

Sample ID	LF2GW04
Sample Depth (ft bgs)	20.0
Sample Date	04/03/95
INORGANICS (µg/L)	
Aluminum	11100
Aluminum (F)	227
Antimony (F)	<4
Arsenic	9
Arsenic (F)	<5[n]
Barium	144
Barium (F)	76.7
Beryllium	<3
Beryllium (F)	<3
Calcium	25000
Calcium (F)	21000
Chromium	213
Chromium (F)	<10
Chromium VI	<10
Copper	8.6
Copper (F)	<2.1
Cyanide	4.19
Iron	25700
Iron (F)	398
Lead	5.6
Magnesium	111000
Magnesium (F)	89400
Manganese	310
Manganese (F)	45.9
Mercury	<0.2

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [illegible]ed value

Table 9.1-12 Summary of Groundwater Sample Detections, Landfill 2, Follow-on RI (page 5 of 6)

Sample ID	LF2GW04
Sample Depth (ft bgs)	20.0
Sample Date	04/03/95
INORGANICS (µg/L)	
Nickel	334
Nickel (F)	18.4
Potassium	2790
Potassium (F)	2040
Silver	<0.1
Sodium	68400
Sodium (F)	65600
Vanadium	55
Vanadium (F)	<25
Zinc	41.2
Zinc (F)	<20
MISCELLANEOUS PARAMETERS (µg/L)	
Alkalinity (Total as CaCO3)	390000
Bicarbonate Alkalinity	387000
Carbonate Alkalinity	43.5
Hydroxide Alkalinity	3170
Chloride	95700[a]
Nitrate	4400[a]
Sulfate	24900
Total Dissolved Solids	614000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value

Table 9.1-12 Summary of Groundwater Sample Detections, Landfill 2, Follow-on RI (page 6 of 6)

Sample ID	LF2GW04
Sample Depth (ft bgs)	20.0
Sample Date	04/03/95

VOLATILE ORGANICS (µg/L)

No detections above reporting limit

SEMIVOLATILE ORGANICS (µg/L)

Bis(2-ethylhexyl) phthalate	<20.8[a]

ORGANOCHLORINE PESTICIDES (µg/L)

No detections above reporting limit

POLYCHLORINATED BIPHENYLS (µg/L)

No detections above reporting limit

CHLORINATED HERBICIDES (µg/L)

No detections above reporting limit

TOTAL PETROLEUM HYDROCARBONS (µg/L)

TPH-diesel fraction

No detections above reporting limit

TPH-gas fraction

No detections above reporting limit

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [illegible]ed value

Table 9 Summary of Surface Soil Sample Detections, Transfer Statio ial RI (page 1 of 2)

Sample ID	LF3SS01	LF3SS02	LF3SS03	LF3SS04	LF3SS05	LF3SS06	LF3SS07	LF3SS08	LF3SS09	LF3SS10	LF3SS11	LF3SS12
Sample Date	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90	10/05/90
INORGANICS (μg/g)												
Aluminum	28,400	24,600	26,700	12,400	14,100	19,600	55,700	11,100	9,640	11,200	13,400	15,800
Arsenic	5.78	7.93	6.97	<2.50	3.09	7.30	<2.50	2.70	<2.50	<2.50	<2.50	<2.50
Barium	385	544	362	49.7	77.8	164	75.2	62.3	25.0	35.1	43.9	72.3
Beryllium	0.815	0.787	0.572	<0.427	<0.427	0.653	0.687	<0.427	<0.427	<0.427	<0.427	<0.427
Calcium	45,200	24,500	35,800	22,800	13,900	12,100	50,100	10,400	9,840	10,800	14,300	15,400
Chromium	113	98.4	185	168	106	71.1	214	113	83.1	169	138	133
Cobalt	23.1	18.1	21.6	9.49	10.1	13.8	36.5	10.2	9.88	10.1	11.7	15.4
Copper	54.2	77.4	56.0	3.18	13.7	19.0	45.1	16.3	<2.84	4.08	<2.84	9.17
Iron	38,900	38,700	37,400	30,800	27,600	29,400	61,000[a]	31,000	32,700	34,800	38,100	47,100
Lead	66.1	89.1	559	<7.44	39.2	48.4	17.8	15.0	17.6	10.9	15.7	14.7
Magnesium	15,900	9,920	15,500	3,630	6,910	9,640	31,800	3,640	3,060	3,400	4,110	4,840
Manganese	858	1,200[a]	636	283	280	503	960	335	310	298	349	562
Mercury	3.8[a]	0.528	0.527	<0.050	0.187	4.3[a]	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Nickel	81.8	62.2	87.3	25.2	46.2	54.5	144	27.3	22.8	27.0	29.0	29.9
Potassium	4,470	6,020	3,780	882	1,690	3,790	1,340	1,030	675	817	1,180	1,420
Sodium	604	511	640	331	535	336	806	306	225	286	358	357
Vanadium	108	90.3	100	96.6	73.9	61.8	141	82.8	94.6	96.6	116	138
Zinc	90.7	100	188	30.8	58.3	79.6	57.7	38.2	32.1	37.0	37.1	46.8
VOLATILE ORGANICS (μg/g)												
Toluene	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SEMIVOLATILE ORGANICS (μg/g)												
Acenaphthene	<0.41[a]	0.13	<0.41[a]	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Benzo[a]anthracene	<0.41[a]	0.18	3[a]	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Bis(2-ethylhexyl) phthalate	50	9.2	<4.8[a]	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
Chrysene	<0.32[a]	<0.032	3[a]	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Fluoranthene	<0.32[a]	0.20	<0.32	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
2-Methylnaphthalene	<0.32[a]	0.089	<0.32[a]	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
4-Methylphenol/ 4-Cresol*	<2.4[a]	<0.24	<2.4[a]	<0.24	0.65	1.7	<0.24	<0.24	0.68	<0.24	<0.24	<0.24
Phenanthrene	20[a]	0.10	7[a]	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Pyrene	10[a]	0.40	10[a]	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample
(c) = confirmed pesticide detection
* = not on target analyte list; additional information supplied by lab

Table 9.2-1 Summary of Surface Soil Sample Detections, Transfer Station, Initial RI (page 2 of 2)

Sample ID Sample Date	LF3SS01 10/05/90	LF3SS02 10/05/90	LF3SS03 10/05/90	LF3SS04 10/05/90	LF3SS05 10/05/90	LF3SS06 10/05/90	LF3SS07 10/05/90	LF3SS08 10/05/90	LF3SS09 10/05/90	LF3SS10 10/05/90	LF3SS11 10/05/90	LF3SS12 10/05/90
PESTICIDES (μg/g)												
Aldrin	<0.001	0.005(c)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlordane	<0.068	0.085(c)	<0.068	<0.068	<0.068	0.113(c)	<0.068	<0.068	<0.068	<0.068	<0.068	0.099(c)
ppDDD	<0.003	0.013(c)	<0.003	<0.003	0.004(c)	<0.003	<0.003	<0.003	0.008(c)	<0.003	<0.003	0.006(c)
ppDDE	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.007(c)
ppDDT	0.010(c)	0.035(c)	0.005(c)	<0.004	<0.004	0.005(c)	<0.004	<0.004	0.019(c)	<0.004	<0.004	0.031(c)
Dieldrin	0.004(c)	0.011(c)	0.002(c)	<0.002	0.002(c)	0.008(c)	<0.002	<0.002	0.002(c)	<0.002	0.002(c)	0.013(c)
beta-Endosulfan/ Endosulfan II	0.001(c)	0.003(c)	0.001(c)	<0.001	0.001(c)	0.002(c)	<0.001	0.001(c)	0.002(c)	<0.001	<0.001	<0.001
Endrin	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	0.008(c)
Heptachlor	<0.002	0.004(c)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.006(c)
Heptachlor epoxide	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002(c)
Isodrin	<0.003	<0.003	<0.003	<0.003	<0.003	0.004(c)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Lindane	<0.001	0.010(c)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

μg/g = micrograms per gram
< = less than certified reporting limit
a = diluted sample
(c) = confirmed pesticide detection
* = not on target analyte list; additional information supplied by lab

Table 9 Summary of Soil Boring Sample Detections, Transfer Station Supplemental RI (page 1 of 3)

Sample ID	LF3SB01	LF3SB01	LF3SB02	LF3SB02	LF3SB03	LF3SB03	LF3SB04	LF3SB04
Sample Depth (ft bgs)	2.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0
Sample Date	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92
INORGANICS (μg/g)								
Aluminum	17000.000[a]	17000.000[a]	11000.000[a]	5200.000[a]	6300.000[a]	4480.000	6300.000[a]	6100.000[a]
Arsenic	4.760	6.280	6.470	2.640[f]	3.550	2.860[f]	2.510[f]	2.240
Barium	118.000	149.000	86.000	22.100[f]	164.000	14.000[f]	19.600[f]	36.300
Calcium	9200.000[a]	25000.000[a]	7200.000[a]	5370.000	4750.000	3480.000	5200.000	5140.000
Chromium	85.400	66.800	96.700	61.500[f]	53.900[f]	46.300[f]	70.900[f]	86.700[f]
Cobalt	15.200	14.100	13.300	6.470[f]	7.980[f]	5.770[f]	7.180[f]	8.380[f]
Copper	33.400	41.500	23.400	8.760[f]	38.300	14.100	8.750[f]	12.700[f]
Iron	30000.000[a]	30000.000[a]	24000.000[a]	19000.000[a]	17000.000[a]	12000.000[a]	18000.000[a]	29000.000[a]
Lead	58.000[a]	200.000[a]	41.000[a]	18.000[a]	5.260	1.720[f]	1.910[f]	2.150
Magnesium	11000.000[a]	8200.000[a]	13000.000[a]	2310.000[f]	2600.000	2060.000[f]	2480.000[f]	2280.000[f]
Manganese	724.000	610.000	365.000	187.000[f]	612.000	140.000[f]	158.000[f]	220.000[f]
Mercury	0.063	0.161	0.030	<0.027	<0.027	<0.027	<0.027	<0.027
Nickel	75.800	55.600	110.000	22.500	27.000	21.100	24.500	25.100
Potassium	1520.000	1750.000	1390.000	494.000	741.000	433.000	433.000	413.000
Sodium	244.000[k]	454.000[k]	208.000[k]	166.000	185.000[k]	170.000	161.000[k]	184.000[k]
Thallium	40.200[k]	39.600[k]	31.200[k]	<14.700	18.600[k]	<14.700	20.400[k]	31.000[k]
Vanadium	60.800	61.700	60.200	66.900	53.800	37.900[f]	62.400[f]	100.000
Zinc	114.000	133.000	56.400	29.200	33.900	23.300[f]	25.500[f]	29.800

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.2-2 Summary of Soil Boring Sample Detections, Transfer Station, Supplemental RI (page 2 of 3)

Sample ID	LF3SB01	LF3SB01	LF3SB02	LF3SB02	LF3SB03	LF3SB03	LF3SB04	LF3SB04
Sample Depth (ft bgs)	2.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0
Sample Date	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92
VOLATILE ORGANICS (μg/g)								
Acetone	<0.046	0.038[d]	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SEMIVOLATILE ORGANICS (μg/g)								
Benzo(b)fluoranthene	<0.200[a]	0.040	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	<0.200[a]	0.037	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.200[a]	0.063	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Bis(2-ethylhexyl)phthalate	<2.000[a]	<0.390	<0.390	0.610	<0.390	<0.390	<0.390	<0.390
Butylbenzylphthalate	<0.200[a]	0.320	<0.033	0.041	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.200[a]	0.110	0.048	<0.033	<0.033	<0.033	<0.033	<0.033
Naphthalene	<0.200[a]	0.120	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Phenanthrene	<0.200[a]	0.082	0.072	<0.033	<0.033	<0.033	<0.033	<0.033
Pyrene	<0.200[a]	0.077	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.2-2 Summary of Soil Boring Sample Detections, Transfer Station, Supplemental RI (page 3 of 3)

Sample ID	LF3SB01	LF3SB01	LF3SB02	LF3SB02	LF3SB03	LF3SB03	LF3SB04	LF3SB04
Sample Depth (ft bgs)	2.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0
Sample Date	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92	08/25/92
ORGANOCHLORINE PESTICIDES[c] (μg/g)								
pp-DDE	<0.060[a]	<0.060[a]	0.005[d]	<0.060[a]	<0.006	<0.006	<0.006	<0.006
pp-DDT	<0.050[a]	0.040[a,d]	0.011	<0.060[a]	<0.006	<0.006	<0.006	<0.006
POLYCHLORINATED BIPHENYLS								
No detections above certified reporting limit								
CHLORINATED HERBICIDES								
No detections above certified reporting limit								
TOTAL PETROLEUM HYDROCARBONS (μg/g)								
TPH-diesel fraction	250.000	160.000[a]	56.000	140.000	8.000	2.000	6.000	14.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.2-3 Summary of Soil Boring Sample Detections, Transfer Station Site, Follow-on RI (page 1 of 2)

Sample ID	LF3SB05	LF3SB06	LF3SB07	LF3SB07	LF3SB07	LF3SB08	LF3SB08
Sample Depth (ft bgs)	8.0	8.0	0.0	5.0	8.0	0.0	5.0
Sample Date	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	9420	1200	1060	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	NA	NA	NA	NA	NA	NA	NA
TPH (immunoassay)							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

NA = not analyzed

Table 9.2-3 Summary of Soil Boring Sample Detections, Transfer Station Site, Follow-on RI (page 2 of 2)

Sample ID	LF3SB08	LF3SB09	LF3SB09	LF3SB09	LF3SB10	LF3SB10	LF3SB10
Sample Depth (ft bgs)	8.0	0.0	5.0	8.0	0.0	5.0	8.0
Sample Date	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	NA	NA	21.4	NA	NA	NA	NA
TPH (immunoassay)							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

NA = not analyzed

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Table 9.3-1 Summary of Surface Soil Sample Detections Landfill 4 and Fill Site 5, Initial RI

Sample ID	LF4SS01*	LF4SS02	LF5SS01*	LF5SS02
Sample Date	09/27/90	09/27/90	10/05/90	10/01/9
INORGANICS (μg/g)				
Aluminum	12,400	NA	15,900	NA
Arsenic	3.12	NA	2.71	NA
Barium	87.7	NA	73.0	NA
Calcium	10,700	NA	11,800	NA
Chromium	80.1	NA	68.8	NA
Cobalt	9.71	NA	12.4	NA
Copper	18.2	NA	19.9	NA
Iron	24,300	NA	24,200	NA
Lead	103	NA	102	NA
Magnesium	5,800	NA	7,100	NA
Manganese	420	NA	365	NA
Mercury	0.124	NA	0.074	NA
Nickel	44.5	NA	46.6	NA
Potassium	1,390	NA	1,530	NA
Sodium	275	NA	593	NA
Vanadium	59.9	NA	57.8	NA
Zinc	86.4	NA	87.4	NA
VOLATILE ORGANICS (μg/g)	NA	ND	NA	ND
SEMIVOLATILE ORGANICS (μg/g)				
4-Methylphenol/4-Cresol +	0.63	NA	<0.24	NA
Fluoranthene	<0.032	NA	0.080	NA
PESTICIDES (μg/g)				
Sample Date	12/17/90			
Aldrin	0.002(c)	NA	<0.001	NA
delta-Benzenehexachloride/ delta-Hexachlorocyclohexane	0.027(c)	NA	<0.009	NA
Chlordane	0.120(c)	NA	<0.068	NA
ppDDD	0.012(c)	NA	0.006(c)	NA
ppDDT	0.020(c)	NA	0.010(c)	NA
Dieldrin	0.011(c)	NA	0.004(c)	NA
alpha-Endosulfan/Endosulfan I	0.011(c)	NA	<0.001	NA
beta-Endosulfan/Endosulfan II	0.001(c)	NA	0.001(c)	NA
Heptachlor	0.006(c)	NA	0.002(c)	NA
Heptachlor epoxide	0.003(c)	NA	<0.001	NA
Isodrin	0.005(c)	NA	<0.003	NA
Lindane	0.007(c)	NA	<0.001	NA

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
(c) = confirmed pesticide detection
* = composite sample
+ = not on target analyte list: additional information supplied by lab
NA = not analyzed
ND = no detections above certified reporting limit

Table 9.3-2 Summary of Test Pit Soil Sample Detections, Landfill 4, Initial RI (page 1 of 2)

Sample ID	LF4TP01	LF4TP02	LF4TP03	LF4TP04	LF4TP05
Sample Depth (ft bgs)	3.0	1.0	10.0	3.0	3.0
Sample Date	10/04/90	10/04/90	10/04/90	10/04/90	10/04/90
INORGANICS (μg/g)					
Aluminum	9,280	23,200	30,800	9,800	10,800
Arsenic	<2.50	<2.50	3.75	<2.50	3.25
Barium	77.1	474	165	77.4	124
Beryllium	<0.427	0.615	0.872	<0.427	<0.427
Calcium	7,670	2,560	8,160	6,730	8,360
Chromium	50.0	39.7	134	51.7	89.2
Cobalt	8.12	17.4	24.6	7.96	13.7
Copper	23.9	123	45.5	16.9	24.0
Iron	19,200	41,700	51,400	20,100	23,800
Lead	599	86.9	17.7	52.5	555
Magnesium	4,320	3,520	33,200	4,000	10,500
Manganese	1,600[a]	1,600[a]	641	356	436
Mercury	0.369	<0.050	0.088	0.075	0.220
Nickel	29.9	31.3	205	32.6	96.3
Potassium	1,150	4,460	4,760	795	986
Sodium	209	239	161	164	154
Vanadium	38.8	58.4	66.2	46.9	42.7
Zinc	127	59.8	84.0	65.6	87.3
VOLATILE ORGANICS (μg/g)					
No detections above certified reporting limit					
SEMIVOLATILE ORGANICS (μg/g)					
Phenanthrene	<0.032	<0.032	0.11	<0.32[a]	<0.32[a]

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample
(c) = confirmed pesticide detection
* PCBs analyzed using SVOC and PESTICIDE methods

Table 9.3-2 Summary of Test Pit Soil Sample Detections, Landfill 4, Initial RI (page 2 of 2)

Sample ID	LF4TP01	LF4TP02	LF4TP03	LF4TP04	LF4TP05
Sample Depth (ft bgs)	3.0	1.0	10.0	3.0	3.0
Sample Date	10/04/90	10/04/90	10/04/90	10/04/90	10/04/90
PESTICIDES (µg/g)					
Aldrin	<0.001	0.002(c)	<0.001	0.019(c)	<0.001
Chlordane	0.23(c)	<0.068	<0.068	5.47(c)	0.574(c)
ppDDD	<0.003	<0.003	<0.003	0.013(c)	<0.003
ppDDE	0.004(c)	<0.003	<0.003	0.033(c)	0.018(c)
ppDDT	0.045(c)	0.009(c)	<0.004	0.006(c)	0.043(c)
Dieldrin	0.013(c)	0.003(c)	<0.002	0.065(c)	0.017(c)
alpha-Endosulfan/ Endosulfan I	<0.001	<0.001	<0.001	0.025(c)	<0.001
beta-Endosulfan/ Endosulfan II	0.002(c)	0.002(c)	<0.001	<0.001	0.003(c)
Endrin	0.010(c)	<0.007	<0.007	0.356(c)	0.037(c)
Heptachlor	0.004(c)	<0.002	<0.002	0.009(c)	0.003(c)
Heptachlor epoxide	0.004(c)	0.002(c)	<0.001	0.025(c)	0.007(c)
Isodrin	<0.003	<0.003	<0.003	<0.003	0.004(c)
Lindane	<0.001	0.002(c)	<0.001	0.006(c)	<0.001
PCBs* (µg/g)					
PCB 1016	<0.100	<0.100	<0.100	0.151	<0.100
PCB 1260	0.102	<0.048	<0.048	<0.048	<0.048

µg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample
(c) = confirmed pesticide detection
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 9.3-3 Summary of Soil Boring Sample Detections, Landfill 4 and Fill Site 5, Initial RI (page 1 of 2)

Sample ID	LF4SO01	LF4SO02	LF4SO03	LF5SO01	LF5SO02	LF5SO03
Sample Depth (ft bgs)	10.0	10.0	10.0	10.0	10.0	15.0
Sample Date	10/08/90	10/08/90	10/09/90	10/04/90	10/04/90	10/05/90
INORGANICS (μg/g)						
Aluminum	9,780	10,800	12,600	17,800	29,300	34,000
Arsenic	<2.50	<2.50	<2.50	<2.50	3.01	3.25
Barium	29.0	45.6	52.0	74.5	114	158
Beryllium	<0.427	<0.427	<0.427	<0.427	<0.427	0.670
Calcium	7,570	9,010	10,700	6,790	3,000	9,290
Chromium	46.5	60.6	69.9	122	93.8	256
Cobalt	7.08	6.99	8.38	15.9	15.6	26.3
Copper	<2.84	<2.84	<2.84	11.8	27.5	13.9
Iron	14,400	17,200	20,900	35,100	39,300	50,400
Lead	<7.44	<7.44	11.2	<7.44	<7.44	11.0
Magnesium	3,180	2,990	3,440	4,790	7,890	6,790
Manganese	172	246	251	403	447	741
Mercury	<0.050	<0.050	<0.050	<0.050	0.258	<0.050
Nickel	23.3	18.3	21.3	81.9	88.4	106
Potassium	825	874	1,110	901	1,480	2,540
Sodium	291	340	381	348	647	578
Vanadium	40.5	48.8	59.8	85.3	80.3	108
Zinc	16.7	24.9	22.3	35.1	55.4	48.7
VOLATILE ORGANICS						
No detections above certified reporting limit						

μg/g = micrograms per gram
< = less than certified reporting limit
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 9.3-3 Summary of Soil Boring Sample Detections, Landfill 4 and Fill Site 5, Initial RI (page 2 of 2)

Sample ID	LF4SO01	LF4SO02	LF4SO03	LF5SO01	LF5SO02	LF5SO03
Sample Depth (ft bgs)	10.0	10.0	10.0	10.0	10.0	15.0
Sample Date	10/08/90	10/08/90	10/09/90	10/04/90	10/04/90	10/05/90
SEMIVOLATILE ORGANICS						
No detections above certified reporting limit						
PESTICIDES						
No detections above certified reporting limit						
PCBs* (μg/g)						
PCB 1260	0.048	<0.048	<0.048	<0.048	<0.048	<0.048

μg/g = micrograms per gram
< = less than certified reporting limit
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 9.3-4 Summary of Soil Boring Sample Detections, Landfill 4, Supplemental RI
(page 1 of 2)

Sample ID	LF4SB03	LF4SB03
Sample Depth (ft bgs)	5.0	13.0
Sample Date	08/19/92	08/19/92
INORGANICS (μg/g)		
Aluminum	18000.000[a]	5120.000
Antimony	51.600	<41.300
Arsenic	5.160	4.610
Barium	185.000	16.100
Beryllium	1.350	0.598
Calcium	11000.000[a]	2680.000
Chromium	205.000	58.200
Cobalt	15.300	9.000
Copper	42.800	13.300
Iron	33000.000[a]	14000.000[a]
Lead	11.200	2.120
Magnesium	35000.000[a]	1860.000[f]
Manganese	518.000	133.000[f]
Mercury	0.071	<0.027
Nickel	296.000	23.200
Potassium	1970.000	410.000
Selenium	0.584	0.552
Silver	1.740	0.814
Sodium	190.000	174.000
Thallium	147.000[k]	51.900[k]
Vanadium	72.800	53.500
Zinc	74.600	25.500

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.3-4 Summary of Soil Boring Sample Detections, Landfill 4, Supplemental RI
(page 2 of 2)

Sample ID	LF4SB03	LF4SB03
Sample Depth (ft bgs)	5.0	13.0
Sample Date	08/19/92	08/19/92
VOLATILE ORGANICS		
No detections above certified reporting limit		
SEMIVOLATILE ORGANICS (μg/g)		
Fluorene	0.083	<0.033
2-Methylnaphthalene	0.150	<0.033
Napthalene	0.110	<0.033
Phenanthrene	0.150	<0.033
Pyrene	0.064	<0.033
ORGANOCHLORINE PESTICIDES		
No detections above method detection limit		
POLYCHLORINATED BIPHENYLS		
No detections above certified reporting limit		
CHLORINATED HERBICIDES		
No detections above method detection limit		
TOTAL PETROLEUM HYDROCARBONS (μg/g)		
TPH-diesel fraction	210.000[a]	2.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.3-5 Summary of Soil Boring Sample Detections Associated with Test Pit LF4TP01, Landfill 4, Follow-on RI (page 1 of 1)

Sample ID	LF4SB04	LF4SB05	LF4SB05	LF4SB05	LF4SB06	LF4SB06	LF4SB06
Sample Depth (ft bgs)	5.0	0.5	3.0	5.0	0.5	3.0	5.0
Sample Date	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94	12/01/94
INORGANICS (µg/g)							
Lead-XRF	<25	474	<25	<25	426	<25	<25
Lead	1.35	NA	NA	NA	NA	NA	1.17
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	21200	3740	1440	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 9.3-6 Summary of Soil Boring Sample Detections Associated with Test Pit LF4TP05, Landfill 4, Follow-on RI (page 1 of 3)

Sample ID	LF4SB07	LF4SB08	LF4SB08	LF4SB08	LF4SB09	LF4SB09	LF4SB09
Sample Depth (ft bgs)	5.0	0.5	3.0	5.0	0.5	3.0	5.0
Sample Date	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94	12/02/94
INORGANICS (µg/g)							
Lead-XRF	151	99.7	132	69.9	<25	845	<25
Lead	NA	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 9.3-6 Summary of Soil Boring Sample Detections Associated with Test Pit LF4TP05, Landfill 4, Follow-on RI (page 2 of 3)

Sample ID	LF4SB10	LF4SB10	LF4SB10	LF4SB10	LF4SB10	LF4SB19	LF4SB19
Sample Depth (ft bgs)	0.5	3.0	5.0	11.0	14.0	3.0	5.0
Sample Date	12/02/94	12/02/94	12/02/94	01/10/95	01/10/95	01/10/95	01/10/95
INORGANICS (µg/g)							
Lead-XRF	134	940	519	<25	<25	648	<25
Lead	97	NA	NA	NA	NA	52.9	827

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 9.3-6 Summary of Soil Boring Sample Detections Associated with Test Pit LF4TP05, Landfill 4, Follow-on RI (page 3 of 3)

Sample ID	LF4SB19	LF4SB20	LF4SB20	LF4SB20
Sample Depth (ft bgs)	11.0	3.0	5.0	10.0
Sample Date	01/10/95	04/06/95	04/06/95	04/06/95
INORGANICS (µg/g)				
Lead-XRF	<25	NA	NA	NA
Lead	1.33	27	19	3.4

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 9.3-7 Summary of Groundwater Sample Detections, Landfill 4, Follow-on RI (page 1 of 2)

Sample ID	LF4GW03
Sample Depth (ft bgs)	17.0
Sample Date	04/04/95
INORGANICS (µg/L)	
Aluminum	11000
Aluminum (F)	180
Antimony (F)	6.4
Barium	116
Calcium	35700
Calcium (F)	34000
Chromium	54.6
Copper	11.2
Copper (F)	3.7
Cyanide	4.19
Iron	18100
Iron (F)	126
Magnesium	39100
Magnesium (F)	37200
Manganese	532
Mercury	0.231
Nickel	74.7
Nickel (F)	29.4
Potassium	5080
Potassium (F)	5100
Sodium	57000
Sodium (F)	61700
Zinc	43.4
MISCELLANEOUS PARAMETERS (µg/L)	
Alkalinity (Total as CaCO3)	107000
Bicarbonate Alkalinity	107000
Hydroxide Alkalinity	42.8
Chloride	63600[a]
Nitrate	17900[a]
Sulfate	56600[a]
Total Dissolved Solids	274000

µg/L = microgram per Liter (F) = Filtered

[a] = diluted sample

Table 9.3-7 Summary of Groundwater Sample Detections, Landfill 4, Follow-on RI (page 2 of 2)

Sample ID	LF4GW03
Sample Depth (ft bgs)	17.0
Sample Date	04/04/95

VOLATILE ORGANICS (µg/L)
No detections above reporting limit

SEMIVOLATILE ORGANICS (µg/L)
No detections above reporting limit

ORGANOCHLORINE PESTICIDES (µg/L)
No detections above reporting limit

POLYCHLORINATED BIPHENYLS (µg/L)
No detections above reporting limit

CHLORINATED HERBICIDES (µg/L)
No detections above reporting limit

TOTAL PETROLEUM HYDROCARBONS (µg/L)
TPH-diesel fraction
No detections above reporting limit
TPH-gas fraction
No detections above reporting limit

µg/L = microgram per Liter (F) = Filtered
[a] = diluted sample

Table 9.3-8 Summary of Test Pit Soil Sample Detections, Fill Site 5, Initial RI (page 1 of 2)

Sample ID	LF5TP01	LF5TP02	LF5TP03	LF5TP04	LF5TP05
Sample Depth (ft bgs)	10.0	4.0	4.0	1.5	10.0
Sample Date	10/03/90	10/03/90	10/03/90	10/03/90	10/03/90
INORGANICS (μg/g)					
Aluminum	11,500	16,600	21,000	36,400	18,900
Arsenic	3.22	<2.50	<2.50	<2.50	<2.50
Barium	82.1	121	127	166	96.9
Beryllium	<0.427	<0.427	<0.427	1.10	<0.427
Calcium	7,740	8,080	2,770	20,300	4,060
Chromium	69.6	47.9	82.3	32.8	78.2
Cobalt	9.59	19.1	19.4	45.6	17.7
Copper	21.1	31.6	22.1	63.2	13.3
Iron	21,100	38,800	34,900	120,000[a]	28,900
Lead	152	189	<7.44	12.3	<7.44
Magnesium	4,940	4,700	6,400	13,400	4,130
Manganese	315	702	562	1,700[a]	439
Mercury	0.072	<0.050	<0.050	<0.050	<0.050
Nickel	42.9	31.9	76.5	30.6	43.6
Potassium	1,090	1,040	808	1,250	1,040
Sodium	186	285	584	693	174
Vanadium	47.7	103	67.8	300	66.3
Zinc	85.5	79.5	47.0	119	36.6
VOLATILE ORGANICS (μg/g)					
No detections above certified reporting limit					
SEMIVOLATILE ORGANICS (μg/g)					
Di-n-butyl phthalate	<1.3	<1.3	6.0	<1.3	<1.3

μg/g = micrograms per gram
< = less than certified reporting limit
(c) = confirmed pesticide detection
[a] = diluted sample

Table 9.3-8 Summary of Test Pit Soil Sample Detections, Fill Site 5, Initial RI (page 2 of 2)

Sample ID	LF5TP01	LF5TP02	LF5TP03	LF5TP04	LF5TP05
Sample Depth (ft bgs)	10.0	4.0	4.0	1.5	10.0
Sample Date	10/03/90	10/03/90	10/03/90	10/03/90	10/03/90
PESTICIDES (μg/g)					
Chlordane	0.900(c)	<0.068	<0.068	<0.068	<0.068
ppDDE	0.003(c)	<0.003	<0.003	<0.003	<0.003
Dieldrin	0.012(c)	<0.002	<0.002	<0.002	<0.002
Endrin	0.009(c)	<0.007	<0.007	<0.007	<0.007
Heptachlor	0.004(c)	<0.002	<0.002	<0.002	0.005(c)
Heptachlor epoxide	0.003(c)	<0.001	<0.001	<0.001	<0.001
Lindane	0.007(c)	<0.001	<0.001	<0.001	<0.001

μg/g = micrograms per gram
< = less than certified reporting limit
(c) = confirmed pesticide detection
a = diluted sample

Table 9.4-1 Summary of Soil Boring Sample Detections, Fill Site 6, Initial RI

Sample ID	LF6SO01A	LF6SO01B	LF6SO02A	LF6SO02B	LF6SO03A	LF6SO03B
Sample Depth (ft bgs)	1.0	23.5	4.0	7.0	3.0	7.5
Sample Date	11/07/90	11/08/90	11/07/90	11/08/90	11/08/90	11/08/90
INORGANICS (μg/g)						
Aluminum	18,000	11,600	21,900	13,800	18,800	15,100
Barium	100	36.8	96.4	65.8	80.0	68.8
Calcium	7,560	5,080	8,030	5,490	6,160	6,970
Chromium	126	107	169	98.0	131	149
Cobalt	14.0	13.8	14.9	13.7	12.8	13.5
Copper	16.2	6.98	11.7	8.43	11.3	7.97
Iron	30,900	27,600	37,800	29,100	35,900	30,000
Lead	84.0	<7.44	<7.44	<7.44	<7.44	<7.44
Magnesium	5,020	4,860	5,900	4,730	5,240	5,250
Manganese	405	181	431	312	354	368
Mercury	0.157	<0.050	<0.050	<0.050	<0.050	<0.050
Nickel	71.6	84.2	106	74.6	90.6	77.4
Potassium	1,100	614	1,140	542	862	576
Sodium	341	333	501	409	339	448
Vanadium	73.3	55.8	82.1	72.8	76.2	75.2
Zinc	81.1	33.5	44.3	32.2	37.4	37.2
VOLATILE ORGANICS (μg/g)						
1,1,1-Trichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	0.74
Trichlorofluoromethane*	<0.23	<0.23	<0.23	<0.23	0.65	0.540
SEMIVOLATILE ORGANICS						
No detections above certified reporting limit						

μg/g = micrograms per gram < = less than certified reporting limit * = not on target analyte list; additional information supplied by lab

Table 9.4-2 Summary of Soil Boring Sample Detections Associated with Soil Boring LF6SO03, Fill Site 6, Follow-on RI (page 1 of 6)

Sample ID	LF6SB01	LF6SB01	LF6SB01	LF6SB02	LF6SB02	LF6SB02	LF6SB03
Sample Depth (ft bgs)	3.0	9.0	20.0	3.0	8.0	20.0	3.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
INORGANICS (µg/g)							
Aluminum	8620	6160	4200	7230	5170	4800	11100
Arsenic	<0.5[p]	0.56[p]	<0.5[p]	<0.5[p]	<0.5[p]	<0.5[p]	<0.5[p]
Barium	51.5	40.3	15.6	47.5	27.5	18.5	68.8
Beryllium	0.134	0.123	0.348	0.124	<0.1	<0.1	0.222
Cadmium	<0.1	<0.1	<0.5	<0.1	0.22	<0.1	0.444
Calcium	929	1230	816	915	1210	1030	1330
Chromium	48.2	43.7	24	49.7	41.8	30.5	81
Cobalt	6.83	7.73	6.36	8.14	8.8	7.85	15.5
Copper	6.05	4.93	3.36	5.2	4.62	4.03	9.54
Iron	21300[n]	20200[n]	7560[n]	18100[n]	14300[n]	10900	35500[n]
Lead	3.02[n]	2.58[n]	1.8[n]	2.6[n]	2.42[n]	2.18[n]	3.44[n]
Magnesium	3250	3810	2640	3950	3740	3160	4330
Manganese	202	224	81.6	373	154	120	422
Nickel	50.4	43.7	37.2	61	53.9	43.6	72.1
Potassium	246	157	120	158	121	153	444[n]
Silver	7.28[f]	7.73[f]	2.76[f]	7.01[f]	6.05[f]	4.36[f]	11.1[f]
Sodium	168	134	92.4	158	132	99.2	178
Vanadium	32.5	34.7	12	31.6	27.5	19.6	49.9
Zinc	22.4	21.3	16.8	22.6	22	18.5	31.1
VOLATILE ORGANICS (µg/g)							
Trichloroethene And Breakdown Products							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.4-2 Summary of Soil Boring Sample Detections Associated with Soil Boring LF6SO03, Fill Site 6, Follow-on RI (page 2 of 6)

Sample ID	LF6SB01	LF6SB01	LF6SB01	LF6SB02	LF6SB02	LF6SB02	LF6SB03
Sample Depth (ft bgs)	3.0	9.0	20.0	3.0	8.0	20.0	3.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.4-2 Summary of Soil Boring Sample Detections Associated with Soil Boring LF6SO03, Fill Site 6, Follow-on RI (page 3 of 6)

Sample ID	LF6SB03	LF6SB03	LF6SB04	LF6SB04	LF6SB04	LF6SB05	LF6SB05
Sample Depth (ft bgs)	8.0	20.0	3.0	8.0	20.5	3.5	8.5
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
INORGANICS (µg/g)							
Aluminum	6540	6950	7460	5170	3830	6940	5290
Arsenic	<0.5[p]	<0.5[p]	<0.5[p]	<0.5[p]	<0.5[p]	<0.5[p]	<0.5[p]
Barium	39.3	23.6	65.5	31.9	13.9	39.2	27
Beryllium	0.24	<0.1	0.147	<0.1	<0.1	0.123	<0.1
Cadmium	<0.5	<0.1	<0.5	<0.1	0.371	0.493	<0.1
Calcium	1420	1810	1690	979	1280	1080	1300
Chromium	50.2	51.5	48.6	26.4	41.8	41.4	42.1
Cobalt	8.83	12.1	8.25	5.83	6.73	9.85	6.48
Copper	4.91	5.84	6.21	3.74	3.02	5.82	4.32
Iron	16400[n]	16700[n]	19200[n]	9790[n]	11400[n]	16800[n]	11900[n]
Lead	2.73[n]	3.06[n]	3.05[n]	2.42[n]	1.97[n]	1.68[n]	2.48[n]
Magnesium	3490	4310	3390	2970	3710	3470	3460
Manganese	207	167	260	132	110	224	216
Nickel	50.2	64	52	37.4	32.5	51.5	42.1
Potassium	218[n]	306	362[n]	154[n]	162[n]	269[n]	162[n]
Silver	7.09[f]	7.09[f]	8.81[f]	3.96[f]	6.38[f]	6.94[f]	5.08[f]
Sodium	153	167	395	132	103	179	151
Vanadium	32.7	29.2	38.4	16.5	29	29.1	23.8
Zinc	21.8	26.4	22.6	18.7	17.4	22.4	20.5
VOLATILE ORGANICS (µg/g)							
Trichloroethene And Breakdown Products							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.4-2 Summary of Soil Boring Sample Detections Associated with Soil Boring LF6SO03, Fill Site 6, Follow-on RI (page 4 of 6)

Sample ID	LF6SB03	LF6SB03	LF6SB04	LF6SB04	LF6SB04	LF6SB05	LF6SB05
Sample Depth (ft bgs)	8.0	20.0	3.0	8.0	20.5	3.5	8.5
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.4-2 Summary of Soil Boring Sample Detections Associated with Soil Boring LF6SO03, Fill Site 6, Follow-on RI (page 5 of 6)

Sample ID	LF6SB05	LF6SB06	LF6SB06	LF6SB06
Sample Depth (ft bgs)	20.0	3.0	8.0	20.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94
INORGANICS (µg/g)				
Aluminum	4030	13400	5130	5120
Arsenic	<0.5[p]	<0.5[p]	3.16[n]	0.595[p]
Barium	14.6	56	30.5	21.4
Beryllium	<0.1	0.504	<0.1	<0.1
Cadmium	0.235	<0.5	<0.5	<0.5
Calcium	1020	1340	1200	1310
Chromium	28	91.8	52.3	36.9
Cobalt	6.83	12.3	8.94	9.64
Copper	3.47	9.74	5.67	4.52
Iron	9630[n]	30200[n]	34900[n]	15500[n]
Lead	2.35[n]	3.02[n]	1.2[n]	2.26[n]
Magnesium	2580	4700	3490	3810
Manganese	91.8	381	164	131
Nickel	40.3	71.7	62.2	47.6
Potassium	202[n]	493[n]	185[n]	238[n]
Silver	4.03[f]	12.3[f]	9.81[f]	6.79[f]
Sodium	134	269	185	131
Vanadium	19	54.9	48	31
Zinc	16.8	31.4	20.7	20.2
VOLATILE ORGANICS (µg/g)				
Trichloroethene And Breakdown Products				
No detections above reporting limit				

µg/g = microgram per gram

< = less than reporting limit
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.4-2 Summary of Soil Boring Sample Detections Associated with Soil Boring LF6SO03, Fill Site 6, Follow-on RI (page 6 of 6)

Sample ID	LF6SB05	LF6SB06	LF6SB06	LF6SB06
Sample Depth (ft bgs)	20.0	3.0	8.0	20.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94
SEMIVOLATILE ORGANICS (µg/g)				
Polyaromatic Hydrocarbons				
No detections above reporting limit				
TOTAL PETROLEUM HYDROCARBONS (µg/g)				
TPH-diesel fraction				
No detections above reporting limit				
TPH-gas fraction				
No detections above reporting limit				

µg/g = microgram per gram

< = less than reporting limit
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 9.4-3 Summary of Soil Boring Sample Detections, Total Organic Carbon Analysis, Fill Site 6, Follow-on RI (page 1 of 1)

Sample ID	LF6SB07	LF6SB07	LF6SB07
Sample Depth (ft bgs)	5.0	20.0	43.5
Sample Date	11/15/94	11/15/94	11/15/94
MISCELLANEOUS PARAMETERS (µg/g)			
Total Organic Carbon	268	123	178

µg/g = microgram per gram

Table 9.4-4 Summary of Discrete Groundwater Sample Detections, Fill Site 6, Follow-on RI (page 1 of 2)

Sample ID	LF6SB08	LF6SB09	LF6SB09	LF6SB10	LF6SB11	LF6SB11
Sample Depth (ft bgs)	17.0	15.6	26.5	23.3	20.3	27.7
Sample Date	11/19/94	11/19/94	11/19/94	11/18/94	11/18/94	11/18/94
INORGANICS (µg/L)						
Aluminum	10100	929	17200	214000	130000	19100
Antimony	<1.11	1.68	1.37	1.16	<1.11	<1.11
Arsenic	2.00	<1.70	2.84	35.7	51.0[a]	11.1
Barium	134	29.0	150	1100	737	148
Beryllium	2.00[f]	1.00[f]	2.00[f]	5.00	3.00	<1.00
Calcium	39900	17700	31000	154000	88800	41100
Chromium	94.0	16.0	200	1910	1370	213
Cobalt	22.0	<7.00	39.0	416	276	42.0
Copper	12.3	3.42[f]	35.6	292[a]	195[a]	23.0
Cyanide	5.60	5.80	<5.00	<5.00	<5.00	<5.00
Iron	17800	1310	45800	348000	291000	51300
Lead	4.29[f]	2.12[f]	8.34	51.2[a]	56.4[a]	6.97[f]
Magnesium	46700	25300	38900	143000	110000	59200
Manganese	287	59.0	413	5050	3500	472
Mercury	0.200[f]	<0.110	<0.110	0.600[f]	0.300[f]	0.300[f]
Nickel	158[a]	38.3	212[a]	2260[a]	1630[a]	231
Potassium	2800	778	3030	16800	8870	3020
Sodium	85800	42300	59800	101000	76900	70700
Thallium	<0.811	<0.811	<0.811	<0.811	5.80[f]	<0.811
Vanadium	56.0	17.0	100	1290	695	130
Zinc	44.0	12.0	105	820	566	85.0
VOLATILE ORGANICS (µg/L)						

µg/L = microgram per Liter

< = less than reporting limit

[a] = diluted sample

[f] = data affected by blank contamination

Table 9.4-4 Summary of Discrete Groundwater Sample Detections, Fill Site 6, Follow-on RI (page 2 of 2)

Sample ID	LF6SB08	LF6SB09	LF6SB09	LF6SB10	LF6SB11	LF6SB11
Sample Depth (ft bgs)	17.0	15.6	26.5	23.3	20.3	27.7
Sample Date	11/19/94	11/19/94	11/19/94	11/18/94	11/18/94	11/18/94
Trichloroethene And Breakdown Products						
No detections above reporting limit						
SEMIVOLATILE ORGANICS (µg/L)						
Bis(2-ethylhexyl) phthalate	7.32[f]	7.75[f]	43.8[f]	8.89[f]	5.62[f]	6.53[f]
Di-n-butylphthalate	4.47[f]	2.30[f]	3.55[f]	10.5[f]	3.25[f]	3.41[f]
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-diesel fraction	<50	<50	<50	250	84	<50
TPH-gas fraction						
No detections above reporting limit						

µg/L = microgram per Liter

< = less than reporting limit
[a] = diluted sample
[f] = data affected by blank contamination

Table 9.5-1 Summary of Test Pit Soil Sample Detections, Graded Area 9, Initial RI

Sample ID	LF9TP01	LF9TP02	LF9TP03
Sample Depth (ft bgs)	7.0	2.0	1.0
Sample Date	09/25/90	09/26/90	09/26/90
INORGANICS (μg/g)			
Aluminum	28,000	46,600	46,500
Barium	118	86.2	59.9
Beryllium	0.603	1.18	1.09
Calcium	4,300	32,600	39,100
Chromium	176	150	217
Cobalt	16.6	33.9	40.3
Copper	19.2	43.6	57.2
Iron	38,300	53,800	55,900
Lead	15.0	9.30	14.5
Magnesium	5,320	22,900	37,400
Manganese	376	912	815
Mercury	0.203	<0.050	<0.050
Nickel	107	94.7	152
Potassium	1,690	1,340	1,040
Sodium	310	462	548
Vanadium	78.5	140	134
Zinc	48.6	57.8	64.8
VOLATILE ORGANICS			
No detections above certified reporting limit			
SEMIVOLATILE ORGANICS (μg/g)			
Acenaphthene	<0.041	<0.041	0.18
Benzo[a]anthracene	<0.041	<0.041	0.13
Chrysene	<0.032	<0.032	0.12
Fluoranthene	<0.032	<0.032	0.41
Fluorene	<0.065	<0.065	0.17
Phenanthrene	<0.032	<0.032	1.2
Pyrene	<0.083	<0.083	0.38

μg/g = micrograms per gram
< = less than certified reporting limit

Table 9.5-2 Summary of Soil Boring Sample Detections, Graded Area 9, Supplemental RI
(page 1 of 2)

Sample ID	LF9SB01	LF9SB01
Sample Depth (ft bgs)	1.0	4.0
Sample Date	08/19/92	08/19/92
INORGANICS (μg/g)		
Aluminum	7300.000[a]	5800.000[a]
Arsenic	3.160	2.520
Barium	50.100	30.900
Beryllium	0.621	0.564
Calcium	7900.000[a]	3450.000
Chromium	50.500	40.400[f]
Cobalt	9.240	7.570[f]
Copper	21.200	11.300
Iron	16000.000[a]	11000.000[a]
Lead	55.000[a]	2.570
Magnesium	3620.000[f]	2060.000[f]
Manganese	256.000[f]	156.000[f]
Mercury	0.053	<0.027
Nickel	35.600	22.300
Potassium	723.000	493.000
Selenium	0.554	<0.250
Silver	0.979	0.688
Sodium	171.000[k]	176.000[k]
Thallium	61.500	39.700
Vanadium	52.800	41.300[f]
Zinc	52.500	25.000[f]
VOLATILE ORGANICS		
No detections above certified reporting limit or method detection limit		

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[d] = estimated value - below method detection limit
[f] = data affected by blank contamination
[k] = data not verified by other lab results

Table 9.5-2 Summary of Soil Boring Sample Detections, Graded Area 9, Supplemental RI
(page 2 of 2)

Sample ID	LF9SB01	LF9SB01
Sample Depth (ft bgs)	1.0	4.0
Sample Date	08/19/92	08/19/92
SEMIVOLATILE ORGANICS (μg/g)		
Bis(2-ethylhexyl) phthalate	0.480	<0.390
Pyrene	0.034	<0.033
ORGANOCHLORINE PESTICIDES (μg/g)		
pp-DDT	<0.060[a]	0.005[d]
Dieldrin	0.040[a]	<0.006
POLYCHLORINATED BIPHENYLS		
No detections above certified reporting limit		
CHLORINATED HERBICIDES		
No detections above method detection limit		
TOTAL PETROLEUM HYDROCARBONS (μg/g)		
TPH-diesel fraction	50.000[a]	15.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 9.6-1 Summary of Soil Boring Sample Detections, Landfill E, Supplemental RI (page 1 of 4)

Sample ID	DAEGW04	DAEGW04	DAEGW05	DAEGW05	DAESB01	DAESB01
Sample Depth (ft bgs)	0.0	8.0	3.0	38.0	9.0	21.0
Sample Date	10/19/92	10/19/92	10/21/92	10/22/92	08/13/92	08/13/92
INORGANICS (μg/g)						
Aluminum	9300.000[a]	9100.000[a]	8200.000[a]	13000.000[a]	9500.000[a]	7200.000
Arsenic	2.670	3.780	3.840	3.870	8.010	2.130
Barium	78.400	43.800	80.100	82.200	347.000	54.500
Beryllium	0.831	<0.500	<0.500	<0.500	1.160	<0.500
Cadmium	<0.515	<0.515	<0.515	<0.515	2.060	<0.515
Calcium	1770.000	1850.000	3480.000	3580.000	16000.000[a]	2430.000
Chromium	59.400	96.900	43.800	300.000	116.000	64.800
Cobalt	12.000	10.200	10.300	31.400	59.100	27.100
Copper	32.300	24.400	26.700	31.800	121.000	17.500
Iron	16000.000[a]	19000.000[a]	16000.000[a]	30000.000[a]	55000.000[a]	16000.000
Lead	13.000[a]	3.240	81.000[a]	4.130	1400.000[a]	2.100
Magnesium	2700.000	3310.000	2840.000	7600.000[a]	5940.000	2610.000
Manganese	419.000	261.000	378.000	425.000	529.000	364.000
Mercury	0.029	<0.027	0.143	<0.027	1.500[a]	<0.027
Nickel	33.500	67.800	32.200	393.000	103.000	43.800
Potassium	775.000	278.000	744.000	759.000	1240.000	551.000
Selenium	<0.250	<0.250	<0.250	<0.250	<0.500[a]	<0.250
Silver	<0.521	<0.521	<0.521	<0.521	19.500	<0.521
Sodium	237.000	260.000	167.000[k]	210.000[k]	655.000	198.000
Thallium	124.000[k]	125.000[k]	107.000[k]	204.000[k]	229.000[k]	49.000[k]
Vanadium	40.900	43.100	36.600	49.000	59.300	49.200
Zinc	43.000	33.100	63.600	48.400	858.000	33.500
VOLATILE ORGANICS (μg/g)						
Acetone	<0.046	<0.046	<0.046	<0.046	0.068	<0.046
Benzene	<0.002	<0.002	<0.002	<0.002	0.003	<0.002
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005	0.021	<0.005
Toluene	0.007	<0.002	0.007	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated detection - below method detection limit
[k] = data not confirmed by other lab results

Table 9. Summary of Soil Boring Sample Detections, Landfill E, Supplemental RI (page

Sample ID	DAEGW04	DAEGW04	DAEGW05	DAEGW05	DAESB01	DAESB01
Sample Depth (ft bgs)	0.0	8.0	3.0	38.0	9.0	21.0
Sample Date	10/19/92	10/19/92	10/21/92	10/22/92	08/13/92	08/13/92
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthene	<0.033	<0.033	<0.033	<0.033	0.200	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033	0.220	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	<0.033	<0.033	0.320	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033	0.250	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	<0.033	0.500	<0.033
Benzo(g,h,i)perylene	<0.250	<0.250	<0.250	<0.250	0.970	<0.250
Chrysene	<0.220	<0.220	<0.220	<0.220	0.440	<0.220
1,4-Dichlorobenzene	<0.033	<0.033	<0.033	<0.033	1.100	<0.033
Fluoranthene	<0.085	<0.085	<0.085	<0.085	0.140	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033	0.250	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033	0.460	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	1.000	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033	40.000[a]	<0.033
N-Nitrosodiphenylamine	<0.038	<0.038	<0.038	<0.038	0.110	<0.038
Phenanthrene	<0.033	<0.033	<0.033	<0.033	1.000	<0.033
Pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
ORGANOCHLORINE PESTICIDES[c] (μg/g)						
alpha-BHC	<0.003	<0.003	<0.003	<0.003	0.004	<0.003
delta-BHC	0.003	<0.003	<0.003	<0.003	<0.003	<0.003
gamma-BHC (Lindane)	0.003	<0.003	<0.003	<0.003	<0.003	<0.003
ppDDD	<0.006	<0.006	<0.006	<0.006	0.026	<0.006
ppDDE	<0.006	<0.006	<0.006	<0.006	0.017	<0.006
ppDDT	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Endosulfan II	<0.006	<0.006	<0.003[d]	<0.006	<0.003	<0.006
Endrin	<0.006[d]	<0.006	<0.006	<0.006	<0.006	<0.006
Endrin aldehyde	0.005[d]	<0.006	0.006	<0.006	<0.006	<0.006
Methoxychlor	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
POLYCHLORINATED BIPHENYLS (μg/g)						
PCB-1254	<0.082	<0.082	<0.082	<0.082	0.082	0.082
CHLORINATED HERBICIDES	No detections above method detection limit					
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	6.000	4.000	15.000	1.000	20.000[a]	1.000
TPH-gas fraction	<1.00	<1.00	<1.000	<1.000	<1.000	<1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated detection - below method detection limit
k = data not confirmed by other lab results

Table 9.6-1 Summary of Soil Boring Sample Detections, Landfill E, Supplemental RI (page 3 of 4)

Sample ID	DAESB02	DAESB02	DAESB03	DAESB03	DAESB04	DAESB04	DAESB04
Sample Depth (ft bgs)	3.0	13.0	8.0	28.0	3.0	5.0	23.0
Sample Date	08/13/92	08/13/92	08/26/92	08/26/92	08/13/92	08/13/92	08/13/92
INORGANICS (µg/g)							
Aluminum	6100.000[a]	12000.000[a]	12000.000[a]	7200.000[a]	11000.000[a]	11000.000[a]	6700.000[a]
Arsenic	2.800	3.720	17.000[a]	3.140	5.520	5.260	3.430
Barium	40.100	49.600	2510.000	29.400	229.000	195.000	28.900
Beryllium	<0.500	1.220	<0.500	<0.500	1.210	1.090	<0.500
Cadmium	<0.515	0.757	17.100	<0.515	0.964	1.230	0.740
Calcium	5990.000	2450.000	43000.000[a]	3050.000	7000.000a	8500.000	2490.000
Chromium	81.500	94.600	157.000	58.900	79.500	70.800	50.800
Cobalt	24.300	36.500	21.700	9.770	35.300	34.500	23.500
Copper	12.800	17.700	39000.000[a]	19.500	52.400	45.800	10.400
Iron	15000.000[a]	24000.000[a]	110000.000[a]	17000.000[a]	23000.000[a]	22000.000	14000.000[a]
Lead	39.000[a]	3.080	8200.000[a]	8.180	1700.000[a]	1300.000	19.000[a]
Magnesium	4610.000	3760.000	8600.000[a]	3110.000	3930.000	3680.000	3120.000
Manganese	238.000	303.000	874.000	243.000	343.000	442.000	240.000
Mercury	0.240[a]	<0.027	0.800[a]	<0.027	0.082	0.101	<0.027
Nickel	76.400	81.900	203.000	59.100	82.400	78.800	63.600
Potassium	323.000	402.000	1600.000	666.000	719.000	744.000	308.000
Selenium	<0.250	0.564	<0.250	<0.250	1.100	0.812	<0.250
Silver	<0.521	<0.521	14.900	<0.521	1.410	1.440	<0.521
Sodium	167.000[k]	322.000[k]	692.000	247.000	239.000[k]	340.000[k]	201.000[k]
Thallium	52.000[k]	90.100[k]	<14.700	<14.700	75.800[k]	89.300[k]	44.600[k]
Vanadium	39.500	70.600	191.000	40.300	69.700	64.100	36.200
Zinc	65.500	38.900	24000.000[a]	40.600	263.000	345.000	32.100
VOLATILE ORGANICS (µg/g)							
Acetone	<0.046	<0.046	0.053	<0.046	0.041[d]	<0.046	<0.046
Benzene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl ethyl ketone	0.007	<0.005	0.007	<0.005	0.009	<0.005	<0.005
Toluene	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated detection - below method detection limit
[k] = data not confirmed by other lab results

Table 9. Summary of Soil Boring Sample Detections, Landfill E, Supplemental RI (page

Sample ID	DAESB02	DAESB02	DAESB03	DAESB03	DAESB04	DAESB04	DAESB04
Sample Depth (ft bgs)	3.0	13.0	8.0	28.0	3.0	5.0	23.0
Sample Date	08/13/92	08/13/92	08/26/92	08/26/92	08/13/92	08/13/92	08/13/92
SEMIVOLATILE ORGANICS (µg/g)							
Acenaphthene	0.180	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	0.190	<0.033	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	0.120	<0.033	<0.033	<0.033	<0.033
Benzo(g,h,i)perylene	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Chrysene	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220
1,4-Dichlorobenzene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Fluoranthene	<0.085	<0.085	0.170	<0.085	<0.085	<0.085	<0.085
Fluorene	0.360	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	0.078	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	0.050	<0.033	<0.033	<0.033	<0.033
Naphthalene	0.240	<0.033	0.240	<0.033	<0.033	<0.033	<0.033
N-Nitrosodiphenylamine	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
Phenanthrene	0.600	<0.033	0.110	<0.033	<0.033	<0.033	<0.033
Pyrene	<0.033	<0.033	0.170	<0.033	0.041	0.068	<0.033
ORGANOCHLORINE PESTICIDES (µg/g)							
alpha-BHC	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
delta-BHC	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
gamma-BHC (Lindane)	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
pp-DDD	<0.006	<0.006	0.014	<0.006	0.006	<0.006	<0.006
ppDDE	<0.006	<0.006	0.010	<0.006	0.004[d]	<0.006	<0.006
ppDDT	<0.006	<0.006	0.004[d]	<0.006	<0.006	<0.006	<0.006
Endrin	<0.006	<0.006	0.005[d]	<0.006	<0.006	0.004	<0.006
Endrin aldehyde	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Methoxychlor	<0.030	<0.030	0.020[d]	<0.030	<0.030	<0.030	<0.030
POLYCHLORINATED BIPHENYLS (µg/g)							
PCB-1254	<0.082	<0.082	<0.082	<0.082	<0.082	<0.082	<0.082
CHLORINATED HERBICIDES	No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	6.000	<1.000	38.000	2.000	8.000	<1.000	1.000
TPH-gas fraction	<1.000	<1.000	<1.000	<1.000	<1.000	<1.000	<1.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated detection - below method detection limit
k = data not confirmed by other lab results

Table 9.6-2 Summary of Soil Boring Sample Detections, Landfill E, Follow-on RI (page 1 of 2)

Sample ID	DAESB17	DAESB17	DAESS01	DAESS02	DAESS03	DAESS04
Sample Depth (ft bgs)	0.0	3.5	0.0	0.0	0.0	0.0
Sample Date	12/14/94	12/14/94	12/14/94	12/14/94	12/14/94	12/14/94
INORGANICS (µg/g)						
Aluminum	8630	14500	8480	13100	13600	10100
Barium	97.1	139	112	150	138	101
Beryllium	0.357	0.576	0.399	0.713	0.576	0.426
Calcium	4720	2150	3230	3210	2570	2780
Chromium	69.9	67.8	84.8	37.3	64.2	68.7
Cobalt	12.4	16.2	12.9	17.9	18.9	13.6
Copper	18.4	17.9	30.4	36.9	33.5	30.1
Iron	15700	20300	15700	25400	22200	19100
Lead	43.5	29.5	157	26.9	40.3	115
Magnesium	4150	4270	6590	5870	3870	4420
Manganese	347	429	332	406	589	347
Mercury	<0.0590	0.188	0.574[a]	0.129	0.0957	0.225[a]
Nickel	44.2	51.3	81.1	58.4	57.7	67.7
Potassium	559	575	990	1170	1040	1150
Silver	1.38	<0.500	3230	<0.400	<0.400	<0.400
Sodium	82.1	51.3	68.4	64.3	118	79.4
Vanadium	47.9	53.9	36.0	41.2	53.3	46.4
Zinc	73.2	0.582	128	83.8	66.0	400
VOLATILE ORGANICS (µg/g)						
No detections above reporting limit						

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[c] = confirmed detection
[f] = data affected by blank contamination
[p] = [redacted]ble data

Table 9.6-2 Summary of Soil Boring Sample Detections, Landfill E, Follow-on RI (page 2 of 2)

Sample ID	DAESB17	DAESB17	DAESS01	DAESS02	DAESS03	DAESS04
Sample Depth (ft bgs)	0.0	3.5	0.0	0.0	0.0	0.0
Sample Date	12/14/94	12/14/94	12/14/94	12/14/94	12/14/94	12/14/94
SEMIVOLATILE ORGANICS (µg/g)						
Bis(2-ethylhexyl) phthalate	0.261[f]	0.190[f]	0.258[f]	0.198[f]	0.199[f]	0.178[f]
ORGANOCHLORINE PESTICIDES (µg/g)						
ppDDE	<0.0076	<0.0076	1.05[c]	<0.0076	<0.0076	<0.0076
ppDDT	<0.0071	<0.0071	2.41[c]	<0.0071	<0.0071	0.537[c]
CHLORINATED HERBICIDES (µg/g)						
MCPP	<0.0196[p]	3.54	<0.0196[p]	2.09	4.84	<0.0196[p]
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction						
No detections above reporting limit						
TPH-gas fraction						
No detections above reporting limit						

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[c] = confirmed detection
[f] = data affected by blank contamination
[p] = unreliable data

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Table 9.6-3 Summary of Test Pit Soil Sample Detections, Landfill E, Initial RI

Sample ID	DAETP01	DAETP03	DAETP04	DAETP04
Sample Depth (ft bgs)	7.0	7.0	10.5	4.0
Sample Date	09/27/90	09/27/90	9/28/90	10/02/90
INORGANICS (μg/g)				
Aluminum	18,600	24,900	12,800	20,600
Arsenic	3.25	3.72	3.77	4.23
Barium	228	852	670	287
Beryllium	0.519	0.567	<0.427	<0.427
Calcium	8,310	11,400	8,920	4,280
Chromium	71.6	80.1	76.0	64.2
Cobalt	15.8	19.5	14.0	18.5
Copper	30.5	159	96.0	59.0
Iron	30,300	38,500	31,200	39,200
Lead	371	261	3,900[a]	72.2
Magnesium	6,030	8,080	5,360	6,410
Manganese	510	624	392	555
Mercury	0.155	0.111	0.995	0.099
Nickel	46.5	71.2	72.0	67.8
Potassium	2,250	2,390	1,840	2,420
Silver	<0.803	24.8	<0.803	<0.803
Sodium	197	558	454	296
Vanadium	62.3	61.3	58.9	56.1
Zinc	193	560	15,000[a]	128
VOLATILE ORGANICS (μg/g)				
No detections above certified reporting limit				
SEMIVOLATILE ORGANICS (μg/g)				
Benzyl alcohol	0.039	<0.032	<0.032*	<0.032
Bis(2-ethylhexyl) phthalate	<0.48	<0.48	1.5*	<0.48
Endrin aldehyde+	<1.8	<1.8	<1.8*	3.6(c)
Fluoranthene	<0.032	<0.032	0.13*	<0.032
2-Methylnaphthalene	<0.032	<0.032	0.53*	<0.32
Naphthalene	<0.74	<0.74	7.5*	<0.74
Phenanthrene	<0.32	<0.032	0.48*	<0.032

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample
(c) = confirmed pesticide detection
* = holding time exceeded; values for comparison only
+ = not on target analyte list; additional information supplied by lab

Table 9.6-4 Summary of Soil Boring Sample Detections, Landfill E, Feasibility Study (page 1 of 2)

Sample ID	DAESB06	DAESB06	DAESB07	DAESB07	DAESB08	DAESB08
Sample Depth (ft bgs)	10.5	16.0	12.0	16.0	10.0	16.0
Sample Date	11/02/92	11/02/92	11/02/92	11/02/92	11/03/92	11/03/92
INORGANICS (µg/g)						
Aluminum	11000	11000	6100	6800	7800	14000
Antimony	5.6	<5	<5	<5	<5	6.2
Arsenic	2.6	3.8	2.4	1.8	6.5[a]	4.2[a]
Barium	92	200	26	43	2000	270
Cadmium	<0.5	<0.5	<0.5	<0.5	8	<0.5
Calcium	4900	8400	4300	4800	13000	20000
Chromium	66	56	45	37	48	60
Cobalt	9.6	8.8	3.3	3.3	19	5.3
Copper	22	380	<0.5	7.6	930	57
Iron	21000	29000	12000	13000	140000	15000
Lead	450	830	14	35	5300	1500
Magnesium	3300	4000	2800	3000	3300	6900
Manganese	500	540	170	200	970	290
Mercury	0.26	0.43	0.027	0.07	0.16	0.16
Nickel	52	48	23	25	120	64
Potassium	770	990	500	690	1300	1900
Sodium	160	200	140	150	740	3000
Vanadium	47	39	34	30	110	33
Zinc	140	290	34	52	7500	760
MISCELLANEOUS PARAMETERS (µg/g)						
Organic Lead						
Organic Lead	<0.25[a]	0.93[a]	<0.25[a]	0.26[a]	0.38[a]	7.3[a]

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

Table 9.6-4 Summary of Soil Boring Sample Detections, Landfill E, Feasibility Study (page 2 of 2)

Sample ID	DAESB06	DAESB06	DAESB07	DAESB07	DAESB08	DAESB08
Sample Depth (ft bgs)	10.5	16.0	12.0	16.0	10.0	16.0
Sample Date	11/02/92	11/02/92	11/02/92	11/02/92	11/03/92	11/03/92
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction	35	58	1.3	2.7	93[a]	150
TPH-gas fraction	1.7	<1	<1	<1	3.5	<1

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

Table 9.6-5 Summary of Soil Boring Sample Detections, Lead Evaluation, Landfill E, Follow-on RI (page 1 of 2)

Sample ID	DAESB10	DAESB11	DAESB12	DAESB13	DAESB13	DAESB14	DAESB14
Sample Depth (ft bgs)	18.0	18.0	10.0	10.0	18.0	10.0	18.0
Sample Date	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94	12/13/94
INORGANICS (µg/g)							
Lead-XRF	996	920	<25	98.1	<25	98.1	6200
Lead	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	5240	4790

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 9.6-5 Summary of Soil Boring Sample Detections, Lead Evaluation, Landfill E, Follow-on RI (page 2 of 2)

Sample ID	DAESB15	DAESB15	DAESB16	DAESB16
Sample Depth (ft bgs)	10.0	18.0	10.0	18.0
Sample Date	12/14/94	12/14/94	12/13/94	12/13/94
INORGANICS (µg/g)				
Lead-XRF	146	33.6	2440	732
Lead	23.2	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)				
Total Organic Carbon	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 9.6-6 Summary of Groundwater Sample Detections, Landfill E, Supplemental RI (page 1 of 2)

Sample ID	DAEGW03	DAEGW04	DAEGW05
Sample Date	08/27/92	11/02/92	11/02/92
INORGANICS: filtered, except for cyanide and mercury (μg/L)			
Arsenic	3.840	7.89	9.810
Barium	73.700	31.200	91.700
Calcium	71200.000	38000.000	60800.000
Chromium	7.820	14.800	<6.020
Copper	<8.090	36.000	22.400
Lead	2.930	<1.260	<1.260
Magnesium	137000.000	69400.000	85200.000
Manganese	695.000	119.000	1050.000
Nickel	<13.100[d]	16.500[d]	22.900[d]
Potassium	3720.000	5820.000	6420.000
Sodium	128000.000	63100.000	949000.000
Vanadium	24.400	11.900	12.100
Zinc	16.100	21.100	21.100
MISCELLANEOUS PARAMETERS (μg/L)			
Alkalinity			
Total	560000.000	360000.000	353000.000
Bicarbonate	563000.000	359000.000	352000.000
Hydroxide	23.000	<15.000	<15.000
Chloride	140000.000[a]	96000.000[a]	200000.000[a]
Nitrate	13.600	3200.000	3600.000
Sulfate	240000.000[a]	60300.000	130000.000[a]
TDS	1140000.000	505000.000	1080000.000
VOLATILE ORGANICS			
No detections above certified reporting limit or method detection limit			

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[b] = estimated value - hold time exceeded
[d] = estimated value - below certified reporting limit

Table 9.6-6 Summary of Groundwater Sample Detections, Landfill E, Supplemental RI (page 2 of 2)

Sample ID Sample Date	DAEGW03 08/27/92	DAEGW04 11/02/92	DAEGW05 11/02/92
SEMIVOLATILE ORGANICS (μg/L)			
Bis(2-ethylhexyl)phthalate	<1.000	1.300	5.100
ORGANOCHLORINE PESTICIDES (μg/L)			
beta-BHC	<0.060	<0.050	0.090
delta-BHC	<0.060	<0.050	0.040[d]
POLYCHLORINATED BIPHENYLS			
No detections above certified reporting limit			
CHLORINATED HERBICIDES (μg/L)			
No detections above method detection limit			
TOTAL PETROLEUM HYDROCARBONS (μg/L)			
TPH-diesel fraction	70.000[b]	<50.000	<50.000

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[b] = estimated value - hold time exceeded
[d] = estimated value - below certified reporting limit

Table 5.6-7 Summary of Groundwater Sample Detections, Landfill E, Follow-on RI (page 1 of 6)

Sample ID	DAEGW03	DAEGW03	DAEGW04	DAEGW04	DAEGW05	DAEGW05	DAEGW06
Sample Depth (ft bgs)	63.0	73.0	53.0	59.0	63.0	66.0	39.0
Sample Date	01/12/95	11/08/94	01/18/95	11/09/94	01/12/95	11/08/94	04/05/95
INORGANICS (µg/L)							
Aluminum	NA	2190	NA	1160	NA	4860	313
Antimony	NA	<1.11	NA	<1.11	NA	1.79	<4
Antimony (F)	NA	7.20	NA	11.2	NA	<1.11	5.5
Arsenic	NA	4.62	NA	8.61	NA	7.88	5.7
Arsenic (F)	NA	4.50	NA	4.10	NA	4.80	8.5[n]
Barium	NA	103	NA	69.0	NA	121	<50
Barium (F)	NA	78.0	NA	38.0	NA	72.0	<50
Beryllium	NA	1.00	NA	<1.00	NA	<1.00	<3
Beryllium (F)	NA	1.00	NA	1.00	NA	1.00	<3
Calcium	NA	68100	NA	33300	NA	66300	49000
Calcium (F)	NA	50400	NA	32300	NA	62700	50000
Chromium	NA	35.0[f]	NA	4180	NA	9120	<10
Chromium (F)	NA	9.00	NA	18.0	NA	14.0	<10
Cobalt	NA	<7.00	NA	14.0	NA	21.0	<30
Copper	NA	4.16[f]	NA	50.6 [an]	NA	60.8[a]	3.2
Copper (F)	NA	7.30	NA	9.97	NA	8.52	2.1
Iron	NA	27.0[f]	NA	14200	NA	39400	508
Iron (F)	NA	27.0	NA	51.0	NA	167	<100
Lead	NA	<0.735	NA	4.00	NA	4.39	<3
Magnesium	NA	140000	NA	69100	NA	101000	70500
Magnesium (F)	NA	105000	NA	64500	NA	93300	71700
Manganese	NA	316	NA	141	NA	359	617
Manganese (F)	NA	220	NA	38.0	NA	66.0	623
Mercury	NA	0.400[f]	NA	0.800[f]	NA	0.200[f]	<0.2
Nickel	NA	22.1	NA	309[a]	NA	35.0	23.6

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 9.6-7 Summary of Groundwater Sample Detections, Landfill E, Follow-on RI (page 2 of 6)

Sample ID	DAEGW03	DAEGW03	DAEGW04	DAEGW04	DAEGW05	DAEGW05	DAEGW06
Sample Depth (ft bgs)	63.0	73.0	53.0	59.0	63.0	66.0	39.0
Sample Date	01/12/95	11/08/94	01/18/95	11/09/94	01/12/95	11/08/94	04/05/95
INORGANICS (µg/L)							
Nickel (F)	NA	12.3	NA	281[a]	NA	30.0	<11.7
Potassium	NA	5650	NA	6290	NA	6870	4790
Potassium (F)	NA	3830	NA	5090	NA	5990	5270
Silver	NA	<2.00[n]	NA	<2.00[p]	NA	<2.00	<0.1
Silver (F)	NA	<2.00	NA	<2.00	NA	<2.00	<0.1[n]
Sodium	NA	213000	NA	50700	NA	99600	54400
Sodium (F)	NA	174000	NA	48200	NA	91300	57000
Thallium	NA	11.6 [an]	NA	<0.811	NA	<0.811	<2[p]
Vanadium	NA	16.0	NA	25.0	NA	51.0	<25
Vanadium (F)	NA	6.00	NA	5.00	NA	5.00	<25
Zinc	NA	50.0[f]	NA	33.0	NA	36.0[f]	<20
Zinc (F)	NA	6.00	NA	7.00	NA	10.0	<20
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	958000	NA	374000	NA	557000	290000
Bicarbonate Alkalinity	NA	958000[f]	NA	374000	NA	545000	288000
Carbonate Alkalinity	NA	<1000	NA	<1000	NA	<1000	27.5
Hydroxide Alkalinity	NA	<1000	NA	<1000	NA	<1000	1500
Chloride	NA	95400[n]	NA	70700	NA	138000	139000[a]
Nitrate	NA	2800	NA	2660	NA	3550	201
Sulfate	NA	219000	NA	50200	NA	123000	27700
Total Dissolved Solids	NA	1240000	NA	500000[f]	NA	914000	518000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = e[illegible]ted value
[p] = unreliable data

Table 9.6-7 Summary of Groundwater Sample Detections, Landfill E, Follow-on RI (page 3 of 6)

Sample ID	DAEGW03	DAEGW03	DAEGW04	DAEGW04	DAEGW05	DAEGW05	DAEGW06
Sample Depth (ft bgs)	63.0	73.0	53.0	59.0	63.0	66.0	39.0
Sample Date	01/12/95	11/08/94	01/18/95	11/09/94	01/12/95	11/08/94	04/05/95
VOLATILE ORGANICS (µg/L)							
1,2-Dichloroethane	<0.456	NA	<0.456	NA	1.42	NA	<0.5
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	3.69[f]	NA	8.95[f]	NA	10.1[f]	<20.7
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-gas fraction	NA	<50	NA	<50	NA	<50	<10
TPH-diesel fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 9.6-7 Summary of Groundwater Sample Detections, Landfill E, Follow-on RI (page 4 of 6)

Sample ID	DAEGW07	DAEGW07	DAEGW08
Sample Depth (ft bgs)	8.0	9.0	30.0
Sample Date	04/04/95	04/12/95	04/03/95
INORGANICS (µg/L)			
Aluminum	5610	NA	7110
Antimony	<4	NA	<4
Antimony (F)	6.2	NA	5.9[f]
Arsenic	55.5	NA	6
Arsenic (F)	<5[n]	NA	<5[n]
Barium	62.3	NA	113
Barium (F)	<50	NA	64.8
Beryllium	<3	NA	<3
Beryllium (F)	<3	NA	<3
Calcium	38500	NA	56000
Calcium (F)	37200	NA	55800
Chromium	38.2	NA	45.3
Chromium (F)	<10	NA	<10
Cobalt	<30	NA	<30
Copper	6.9	NA	8
Copper (F)	<2.1	NA	2.1
Iron	9750	NA	12300
Iron (F)	119	NA	<100
Lead	<3	NA	<3
Magnesium	35900	NA	114000
Magnesium (F)	34900	NA	115000
Manganese	417	NA	192
Manganese (F)	351	NA	<15
Mercury	<0.2	NA	<0.2
Nickel	62	NA	109

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ed value
[p] = unreliable data

Table 9.6-7 Summary of Groundwater Sample Detections, Landfill E, Follow-on RI (page 5 of 6)

Sample ID	DAEGW07	DAEGW07	DAEGW08
Sample Depth (ft bgs)	8.0	9.0	30.0
Sample Date	04/04/95	04/12/95	04/03/95
INORGANICS (µg/L)			
Nickel (F)	19.4	NA	28.2
Potassium	1340	NA	2480
Potassium (F)	1110	NA	1350
Silver	5	NA	<0.1
Silver (F)	0.2[n]	NA	<0.1[n]
Sodium	24500	NA	111000
Sodium (F)	27600	NA	119000
Thallium	<2[p]	NA	<2[p]
Vanadium	<25	NA	<25
Vanadium (F)	<25	NA	<25
Zinc	22.5	NA	29.3
Zinc (F)	<20	NA	<20
MISCELLANEOUS PARAMETERS (µg/L)			
Alkalinity (Total as CaCO3)	184000	NA	562000
Bicarbonate Alkalinity	184000	NA	560000
Carbonate Alkalinity	<5	NA	16.5
Hydroxide Alkalinity	110	NA	1740
Chloride	33500[a]	NA	68300[a]
Nitrate	<200	NA	<200
Sulfate	40500	NA	128000[a]
Total Dissolved Solids	358000	NA	736000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 9.6-7 Summary of Groundwater Sample Detections, Landfill E, Follow-on RI (page 6 of 6)

Sample ID	DAEGW07	DAEGW07	DAEGW08
Sample Depth (ft bgs)	8.0	9.0	30.0
Sample Date	04/04/95	04/12/95	04/03/95
VOLATILE ORGANICS (µg/L)			
1,2-Dichloroethane	<0.5	NA	<0.5
SEMIVOLATILE ORGANICS (µg/L)			
Bis(2-ethylhexyl) phthalate	53.4[a]	NA	<20.8[a]
ORGANOCHLORINE PESTICIDES (µg/L)			
No detections above reporting limit			
POLYCHLORINATED BIPHENYLS (µg/L)			
No detections above reporting limit			
CHLORINATED HERBICIDES (µg/L)			
No detections above reporting limit			
TOTAL PETROLEUM HYDROCARBONS (µg/L)			
TPH-gas fraction	<10	NA	11[f]
TPH-diesel fraction			
No detections above reporting limit			

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [illegible]ted value
[p] = unreliable data

Table 10.1-1 Summary of Surface Soil Sample Detections, Building 662, Initial RI

Sample ID	662SS01	662SS02	662SS03	662SS04	662SS05
Sample Date	11/28/90	11/28/90	11/28/90	11/28/90	11/28/90
INORGANICS (μg/g)					
Aluminum	7,610	7,270	7,440	10,300	7,020
Arsenic	3.25	5.26	<2.50	3.49	4.22
Barium	263	214	107	190	131
Beryllium	0.626	0.517	0.555	0.672	0.564
Cadmium	1.78	<1.20	<1.20	3.97	6.63
Calcium	3,420	4,580	6,160	8,650	7,800
Chromium	82.2	81.6	54.0	65.1	79.9
Cobalt	10.8	8.28	7.80	7.09	6.89
Copper	62.4	49.9	20.1	121	403
Iron	28,100	21,600	19,500	22,200	31,800
Lead	392	323	91.9	708	1,400
Magnesium	7,570	7,470	2,920	4,930	3,450
Manganese	468	471	365	182	248
Mercury	0.177	0.138	0.064	0.115	0.401
Nickel	67.2	59.0	27.3	40.0	35.4
Potassium	1,280	1,480	855	1,920	826
Sodium	122	178	112	601	247
Vanadium	38.9	27.9	41.8	48.9	41.6
Zinc	479	749	60.1	386	552
VOLATILE ORGANICS (μg/g)					
1,3-Dimethylbenzene/ m-Xylene	<0.23	<0.23	<0.23	<0.23	0.24
Toluene	<0.10	<0.10	<0.10	<0.10	0.23
SEMIVOLATILE ORGANICS (μg/g)					
Bis (2-ethylhexyl) phthalate	2[a]	<4.8[a]	1.5	<0.48	<0.48
Chrysene	0.2[a]	<0.32[a]	<0.032	<0.032	<0.032
Dimethyl phthalate	<0.13[a]	<0.63[a]	<0.063	<0.063	0.18
Fluoranthene	0.3[a]	<0.32[a]	<0.032	<0.032	<0.032
Pyrene	0.5[a]	<0.83[a]	<0.083	<0.083	<0.083

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample

Table 10.1-2 Summary of Soil Boring Sample Detections Associated with Surface Soil Samples 662SS01 and 662SS02, Building 662, Follow-on RI (page 1 of 2)

Sample ID	662SB03	662SB03	662SB04	662SB04	662SB05	662SB05	662SB06
Sample Depth (ft bgs)	0.0	5.0	0.0	5.0	0.0	5.0	5.0
Sample Date	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	<25	<25	56.7	<25	<25
Lead	2.33	NA	NA	NA	NA	NA	NA
SEMIVOLATILE ORGANICS (µg/g)							
Polyaromatic Hydrocarbons							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)							
No detections above reporting limit							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 10.1-2 Summary of Soil Boring Sample Detections Associated with Surface Soil Samples 662SS01 and 662SS02, Building 662, Follow-on RI (page 2 of 2)

Sample ID	662SB07
Sample Depth (ft bgs)	5.0
Sample Date	11/19/94
INORGANICS (µg/g)	
Lead-XRF	<25
Lead	NA
SEMIVOLATILE ORGANICS (µg/g)	
Polyaromatic Hydrocarbons	
No detections above reporting limit	
TOTAL PETROLEUM HYDROCARBONS (µg/g)	
TPH (immunoassay)	
No detections above reporting limit	
TPH-diesel fraction	
No detections above reporting limit	
TPH-gas fraction	
No detections above reporting limit	

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 10.1-3 Summary of Soil Boring Sample Detections, Building 662, Follow-on RI (page 1 of 1)

Sample ID	662SB01	662SB02
Sample Depth (ft bgs)	1.0	1.0
Sample Date	11/19/94	11/19/94
INORGANICS (µg/g)		
Lead		
No detections above reporting limit		
MISCELLANEOUS PARAMETERS (µg/g)		
Total Organic Carbon	865	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)		
TPH (immunoassay)		
No detections above reporting limit		

µg/g = microgram per gram

Table 10.1-4 Summary of Discrete Groundwater Sample Detections, Building 662, Follow-on RI (page 1 of 1)

Sample ID	662SB08
Sample Depth (ft bgs)	33.0
Sample Date	11/19/94
INORGANICS (µg/L)	
Lead	6
TOTAL PETROLEUM HYDROCARBONS (µg/L)	
TPH-diesel fraction	
No detections above reporting limit	
TPH-gas fraction	
No detections above reporting limit	

µg/L = microgram per Liter

Table 10.2-1 Summary Wipe Sample Detections, Building 680, Initial RI

Sample ID	680W01	680W02	680W03	680W04
Sample Date	11/30/90	11/30/90	11/30/90	11/30/90
PCBs* ($\mu g/cm^2$)				
PCB 1260	<0.006	<0.006	<0.006	0.022

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
* = analysis performed by a non-certified method

Table 10.2-2 Summary of Surface Soil Sample Detections, Building 680, Initial RI

Sample ID	680SS01	680SS02	680SS03
Sample Date	11/16/90	11/16/90	11/16/90
PCBs* (μg/g)			
PCB 1260	6.21	13.6	12.8

μg/g = micrograms per gram
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 10.2-3 Summary of Soil Boring Sample Detections, Building 680, Initial RI

Sample ID	680SO01A	680SO01B	680SO02A	680SO02B	680SO03A
Sample Depth (ft bgs)	0.8	2.2	0.8	4.6	0.8
Sample Date	12/07/90	12/07/90	12/07/90	12/07/90	12/07/90
PCBs* (μg/g)					
PCB 1260	5.97	1.16	0.719	<0.0479	1.80

μg/g = micrograms per gram
< = less than upper certified range
* = PCBs analyzed using SVOC and PESTICIDE methods

Table 10.3-1 Summary of Wipe Sample Detections, Building 1244, Initial RI

Sample ID	1244W01	1244W02	1244W03
Sample Date	11/27/90	11/27/90	11/27/90
INORGANICS ($\mu g/cm^2$)			
Aluminum	20	80	70
Arsenic	<0.2	0.3	<0.2
Barium	<1	20	10
Calcium	200	400	500
Chromium	<1	20	4
Cobalt	<1	2	<1
Copper	2	20	20
Cyanide	<0.2	0.5	<0.2
Iron	40	400	200
Lead	1	80[a]	4
Magnesium	100	200	100
Manganese	0.8	4	3
Mercury	0.04	0.05	0.05
Nickel	<0.1	400	2
Potassium	70	100	100
Silver	7	80	30
Sodium	1,000	400	1,000
Zinc	4	20	20
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)			
Bis(2-ethylhexyl)phthalate	2	2	2
PESTICIDES			
No detections above certified reporting limit			

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
[a] = diluted sample

Table 10.3-2 Summary of Soil Boring Sample Detections, Building 1244, Follow-on RI (page 1 of 1)

Sample ID	1244SB01	1244SB01	1244SB02	1244SB02	1244SB02
Sample Depth (ft bgs)	1.5	3.0	1.5	3.5	6.0
Sample Date	12/19/94	12/19/94	12/19/94	12/19/94	12/19/94
INORGANICS (µg/g)					
Lead-XRF	350	<25	189	<25	<25
VOLATILE ORGANICS (µg/g)					
No detections above reporting limit					
SEMIVOLATILE ORGANICS (µg/g)					
No detections above reporting limit					
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH-diesel fraction					
No detections above reporting limit					
TPH-gas fraction					
No detections above reporting limit					

µg/g = microgram per gram
< = less than reporting limit

Table 10.4-1 Summary of Wipe Sample Detections, Building 1351, Initial RI

Sample ID	1351W01	1351W02	1351W03	1351W04
Sample Date	11/29/90	11/29/90*	11/29/90	11/29/90
INORGANICS ($\mu g/cm^2$)				
Aluminum	40	40	20	20
Barium	<1	0.4	1	<1
Cadmium	<1	0.02	<1	<1
Calcium	30	30	50	200
Chromium	<1	0.2	1	<1
Copper	<1	0.2	1	<1
Iron	80	70	400	60
Lead	0.003	1	1	60[a]
Magnesium	20	20	40	200
Manganese	1	1	2	1
Nickel	<1	0.2	<0.1	<0.1
Potassium	<60	3	<60	<60
Sodium	20	3	40	200
Thallium	<10	0.3	<10	<10
Vanadium	<1	0.2	<1	<1
	2	1	3	2
SEMIVOLATILE ORGANICS ($\mu g/cm^2$)				
Bis(2-ethylhexyl)phthalate	1	1	3	2

$\mu g/cm^2$ = micrograms per square centimeter
< = less than certified reporting limit
[a] = diluted sample
* = sample for ICP metals was collected on 02/08/91

Table 10.4-2 Summary of Surface Soil Sample Detections, Building 1351, Initial RI

Site ID	1351SS01	1351SS02	1351SS03	1351SS04
Sample Date	11/15/90	11/15/90	11/15/90	11/15/90
INORGANICS (μg/g)				
Aluminum	18,600	6,090	13,800	11,100
Barium	224	63.7	179	87.4
Beryllium	0.804	<0.427	0.609	<0.427
Cadmium	17.6	16.2	<1.20	5.01
Calcium	13,400	4,710	7,170	9,460
Chromium	93.7	112	82.8	67.0
Cobalt	11.6	7.26	10.9	8.16
Copper	207	26.4	17.3	26.5
Iron	43,400	18,300	28,600	22,200
Lead	321	282	40.9	141
Magnesium	7,830	5,140	3,350	4,030
Manganese	582	220	375	288
Mercury	0.423	<0.050	<0.05	0.76
Nickel	46.3	32.6	48.5	29.1
Potassium	2,660	748	1,230	1,280
Sodium	603	159	220	282
Vanadium	64.6	27.8	73.5	47.9
Zinc	499	321	56.1	149
VOLATILE ORGANICS (μg/g)				
Toluene	0.52	0.36	0.30	0.38
SEMIVOLATILE ORGANICS (μg/g)				
Bis(2-ethylhexyl)phthalate	45[a]	<0.48	<0.48	1.3
4-Methylphenol/4-Cresol*	10[a]	<0.24	<0.24	<0.24
Pyrene	2[a]	<0.083	<0.083	<0.083

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample
* = not on target analyte list; additional information supplied by lab

Table 1 Summary of Soil Boring Sample Detections, Building 1351, In I (page 1 of 2)

Sample ID	1351SO01A	1351SO01B	1351SO02A	1351SO02B	1351SO03A	1351SO03B
Sample Depth (ft bgs)	2.0	17.0+	1.5	15.0	2.0	5.0
Sample Date	10/26/90	10/26/90*	10/29/90	10/29/90	11/29/90	11/29/90
INORGANICS (μg/g)						
Aluminum	8,860	7,720	9,550	33,100	7,520	11,900
Arsenic	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50
Barium	38.2	56.0	36.5	149	29.4	54.9
Beryllium	0.541	<0.427	0.536	0.774	0.856	0.720
Calcium	6,130	2,560	6,860	13,200	5,240	4,780
Chromium	94.8	753	80.6	1,270	76.5	92.1
Cobalt	8.61	106	9.68	82.4	12.2	11.8
Copper	8.56	13.3	5.95	41.0	8.58	12.5
Iron	29,600	63,000[a]	26,300	94,000[a]	24,400	28,000
Lead	72.5	<7.44	<7.44	<7.44	17.5	13.9
Magnesium	2,460	140,000[a]	2,830	120,000[a]	2,480	2,960
Manganese	252	988	265	1,020	215	237
Mercury	0.049	0.058	<0.050	<0.050	<0.050	<0.050
Nickel	26.3	2,600[a]	25.5	2,530	26.6	31.6
Potassium	410	330	447	549	422	630
Sodium	303	276	145	756	157	182
Vanadium	81.1	28.4	73.7	56.0	63.1	68.8
Zinc	56.0	33.6	29.5	60.5	37.9	51.7
VOLATILE ORGANICS (μg/g)						
Methylethyl ketone/2-butanone	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3
SEMIVOLATILE ORGANICS (μg/g)						
Bis(2-ethylhexyl) phthlate	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48
Chrysene	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Fluoranthene	<0.032	<0.032	0.062	<0.032	<0.032	<0.032
Pyrene	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083

μg/g = micrograms per gram
< = less than certified reporting limit
[a] = diluted sample
* = sample for VOCs and SVOCs collected on 10/29/90
+ = sample for VOCs and SVOCs collected at a depth of 16.5 ft

Table 10.4-3 Summary of Soil Boring Sample Detections, Building 1351, Initial RI (page 2 of 2)

Sample ID	1351SO04A	1351SO04B	1351SO05A	1351SO05B	1351SO06A	1351SO06B
Sample Depth (ft bgs)	1.5	4.5	1	4.5	1.5	4.5
Sample Date	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90
INORGANICS (µg/g)						
Aluminum	8,810	16,200	13,200	17,400	7,420	19,300
Arsenic	<2.50	<2.50	2.87	<2.50	<2.50	<2.50
Barium	44.0	81.5	83.8	103	25.0	132
Beryllium	0.851	0.914	0.851	1.05	0.933	1.27
Calcium	5,550	3,770	5,690	3,540	5,560	3,760
Chromium	80.7	85.4	112	89.1	107	91.2
Cobalt	9.13	9.35	15.3	15.8	9.01	24.2
Copper	10.1	13.7	21.3	14.1	12.6	16.6
Iron	29,700	26,500	31,700	31,600	33,100	30,800
Lead	40.9	<7.44	37.6	<7.44	<7.44	<7.44
Magnesium	2,370	3,280	6,730	3,310	2,010	3,480
Manganese	290	302	504	588	134	709
Mercury	0.062	<0.050	<0.050	0.059	<0.050	0.063
Nickel	28.9	36.1	83.1	45.2	28.8	50.6
Potassium	512	964	862	954	399	906
Sodium	174	254	139	279	159	295
Vanadium	70.3	61.8	69.1	77.4	81.9	68.1
Zinc	96.3	38.1	65.0	36.0	42.1	39.2
VOLATILE ORGANICS (µg/g)						
Methylethyl ketone/2-butanone	<4.3	<4.3	6.3	<4.3	<4.3	<4.3
SEMIVOLATILE ORGANICS (µg/g)						
Bis(2-ethylhexyl) phthlate	1.1	<0.48	<0.48	<0.48	4.4	<0.48
Chrysene	<0.032	<0.032	0.13	<0.032	<0.032	<0.032
Fluoranthene	<0.032	<0.032	0.074	<0.032	<0.032	<0.032
Pyrene	<0.083	<0.083	0.15	<0.083	<0.083	<0.083

µg/g = micrograms per gram
< = less than certified reporting limit
a = diluted sample
* = sample for VOCs and SVOCs collected on 10/29/90
+ = sample for VOCs and SVOCs collected at a depth of 16.5 ft

Table 10.4-4 Summary of Soil Boring Sample Detections, Building 1351, Follow-on RI (page 1 of 3)

Sample ID	1351SB01	1351SB01	1351SB01	1351SB02	1351SB02	1351SB02	1351SB03
Sample Depth (ft bgs)	0.0	5.0	9.5	0.5	5.0	9.5	0.5
Sample Date	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94
INORGANICS (µg/g)							
Lead-XRF	473	<25	<25	147	<25	<25	146
Lead	NA	NA	NA	158	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 10.4-4 Summary of Soil Boring Sample Detections, Building 1351, Follow-on RI (page 2 of 3)

Sample ID	1351SB03	1351SB03	1351SB04	1351SB04	1351SB04	1351SB04	1351SB04
Sample Depth (ft bgs)	5.0	9.5	0.0	0.5	5.0	5.5	9.0
Sample Date	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94	11/19/94
INORGANICS (µg/g)							
Lead-XRF	<25	<25	NA	66.1	<25	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	13900	NA	NA	1890	1500
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 10.4-4 Summary of Soil Boring Sample Detections, Building 1351, Follow-on RI (page 3 of 3)

Sample ID	1351SB04	1351SB05	1351SB05	1351SB05	1351SB07
Sample Depth (ft bgs)	9.5	0.0	5.5	9.5	0.0
Sample Date	11/19/94	11/19/94	11/19/94	11/19/94	01/06/95
INORGANICS (µg/g)					
Lead-XRF	<25	<25	<25	<25	231
Lead	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)					
Total Organic Carbon	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH (immunoassay)					
No detections above reporting limit					

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 10.5-1 Summary of Soil Boring Sample Detections, Fort Point Coast Guard Station, Supplemental RI
(page 1 of 2)

Sample ID	CGGW02	CGGW02	CGGW03	CGGW03
Sample Depth (ft bgs)	2.0	3.5	0.5	5.0
Sample Date	08/12/92	08/12/92	08/18/92	08/18/92
INORGANICS (μg/g)				
Aluminum	3490.000	4030.000	6900.000[a]	4580.000
Arsenic	4.480[f]	5.330[f]	4.420	4.710[f]
Barium	11.000[f]	10.800[f]	117.000	18.200[f]
Beryllium	<0.500	<0.500	0.763	0.567
Cadmium	<0.515	0.690	<0.515	<0.515
Calcium	3540.000	4750.000	5630.000	5800.000
Chromium	36.800[f]	50.500[f]	234.000	229.000[f]
Cobalt	14.500[f]	17.100[f]	14.300[f]	6.790[f]
Copper	6.220[f]	9.3604[f]	4.900[f]	10.400
Iron	9200.000[a]	11000.000[a]	23000.000[a]	14000.000[a]
Lead	3.950	4.110	140.000[a]	13.000[a]
Magnesium	3680.000[f]	4570.000[f]	9000.000[a]	14000.000[a]
Manganese	131.000[f]	178.000[f]	458.000	192.000[f]
Mercury	0.028	<0.027	0.068	<0.027
Nickel	35.500	42.300	77.800	115.000
Potassium	396.000	385.000	677.000	507.000
Selenium	<0.250	<0.250	0.365	0.352
Silver	<0.521	<0.521	1.500	0.948
Sodium	165.000[k]	157.000[k]	189.000[k]	185.000[k]
Thallium	32.900[k]	32.300[k]	88.500[k]	51.500[k]
Vanadium	21.000[f]	24.300[f]	63.700	37.500
Zinc	19.500[f]	22.100[f]	124.000	37.800

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 10.5-1 Summary of Soil Boring Sample Detections, Fort Point Coast Guard Station, Supplemental RI (page 2 of 2)

Sample ID	CGGW02	CGGW02	CGGW03	CGGW03
Sample Depth (ft bgs)	2.0	3.5	0.5	5.0
Sample Date	08/12/92	08/12/92	08/18/92	08/18/92
VOLATILE ORGANICS				
No dections above certified reporting limit				
SEMIVOLATILE ORGANICS (μg/g)				
Benzo(a)anthracene	<0.033	<0.033	0.550	<0.033
Fluoranthene	<0.085	<0.085	0.480	<0.085
Indeno(1,2,3-cd)pyre	<0.033	<0.033	0.310	<0.033
Phenanthrene	<0.033	<0.033	0.440	<0.033
Pyrene	<0.033	<0.033	GT 1.300	<0.033
ORGANOCHLORINE PESTICIDES[c] (μg/g)				
ppDDT	<0.006	<0.006	0.050[ad]	<0.006
POLYCHLORINATED BIPHENYLS (μg/g)				
No detections above certified reporting limit				
CHLORINATED HERBICIDES				
No detections above method detection limit				
TOTAL PETROLEUM HYDROCARBONS (μg/g)				
TPH-diesel fraction	1.000	1.000	380.000[a]	1.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 10.5-2 Summary of Discrete Groundwater Sample Detections, Fort Point Coast Guard Station, Follow-on RI (page 1 of 2)

Sample ID	CGSB01	CGSB01	CGSB01	CGSB02	CGSB02	CGSB02	CGSB03
Sample Depth (ft bgs)	5.5	9.5	19.5	6.5	13.5	21.5	8.5
Sample Date	12/05/94	12/14/94	12/14/94	12/20/94	12/20/94	12/20/94	12/21/94
INORGANICS (µg/L)							
Lead	140	45[n]	10[n]	50	20	<5	33
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction	13000	580	<50	320	570	<50	<50
TPH-gas fraction	56	19	34	19	25	17	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[n] = estimated value

Table 10.5-2 Summary of Discrete Groundwater Sample Detections, Fort Point Coast Guard Station, Follow-on RI (page 2 of 2)

Sample ID	CGSB03	CGSB03
Sample Depth (ft bgs)	15.5	23.5
Sample Date	12/21/94	12/21/94
INORGANICS (µg/L)		
Lead	62	<5
TOTAL PETROLEUM HYDROCARBONS (µg/L)		
TPH-diesel fraction	<50	<50
TPH-gas fraction	NA	NA

µg/L = microgram per Liter

< = less than reporting limit
NA = not analyzed
[n] = estimated value

Table 10.5-3 Summary of Soil Boring Sample Detections, Fort Point Coast Guard Station, Initial RI

Sample ID	CGSO01A	CGSO02A	CGSO02B	CGSO03A	CGSO03B	CGSO04A	CGSO04B	CGSO05A	CGSO06A
Sample Depth (ft bgs)	2.0	1.0	2.0	2.0	3.0	1.0	5.0	1.0	1.0
Sample Date	11/08/90	11/08/90	11/08/90	11/09/90	11/09/90	11/14/90	11/14/90	11/14/90	11/14/90
INORGANICS (μg/g)									
Aluminum	6,230	5,580	5,890	5,080	5,640	5,270	5,480	11,100	9,760
Arsenic	NA	NA	NA	NA	NA	2.82	2.72	<2.50	<2.50
Barium	22.8	15.3	23.3	14.7	14.8	20.4	14.4	373	123
Calcium	4,470	6,310	6,160	5,580	5,070	5,080	4,760	4,460	5,190
Chromium	60.2	75.4	82.8	52.7	51.6	46.3	34.8	36.0	58.1
Cobalt	7.06	6.00	6.09	5.58	5.31	6.32	5.97	10.4	12.0
Copper	6.29	5.23	5.04	4.53	4.41	5.52	4.95	63.5	47.7
Iron	14,100	13,700	12,800	12,400	12,000	13,600	13,500	26,200	23,700
Lead	8.26	<7.44	<7.44	<7.44	<7.44	<7.44	<7.44	114	50.4
Magnesium	7,080	4,650	5,090	4,420	4,700	4,290	4,070	4,540	6,530
Manganese	171	168	170	151	145	180	152	1,080	592
Mercury	0.054	<0.05	<0.050	<0.050	0.098	<0.050	<0.050	0.100	0.107
Nickel	50.8	32.5	32.6	30.7	30.3	29.0	27.0	36.0	48.2
Potassium	550	474	578	494	551	571	578	1,340	1,260
Sodium	177	159	200	195	169	131	157	514	244
Vanadium	28.1	27.6	26.3	23.3	22.3	25.9	25.2	41.8	45.3
Zinc	21.1	18.0	19.8	16.9	17.2	20.4	22.4	98.6	73.1
VOLATILE ORGANICS (μg/g)									
Toluene	<0.10	<0.10	<0.10	<0.10	<0.10	0.33	0.33	0.42	0.32
Trichlorofluoro-methane*	0.60	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	0.31	<0.23
SEMIVOLATILE ORGANICS									
No detections above certified reporting limit									
TOTAL PETROLEUM HYDROCARBONS (μg/g)	<10	<10	<10	20	<30	<20	<20	3,000[a]	400[a]

μg/g = micrograms per gram
< = less than certified reporting limit
NA = not analyzed
[a] = diluted sample
* = not on target analyte list; additional information supplied by lab

Table 10.5-4 Summary of Surface Soil Sample Detections, Fort Point Coast Guard Station, Initial RI

Sample ID Sample Date	CGSS01 11/13/90	CGSS02 11/13/90	CGSS03 11/13/90	CGSS04 11/13/90	CGSS05 11/13/90
INORGANICS (μg/g)					
Aluminum	9,760	10,200	6,310	6,660	8,860
Arsenic	3.38	<2.50	3.07	3.51	3.14
Barium	93.6	107	44.4	57.1	142
Cadmium	<1.20	3.11	<1.20	<1.20	<1.20
Calcium	6,540	7,900	4,990	5,330	4,890
Chromium	65.8	116	75.4	143	101
Cobalt	9.19	11.1	6.60	9.47	9.57
Copper	69.2	80.4	32.3	20.0	44.3
Iron	22,700	24,100	17,900	23,000	24,800
Lead	270	387	105	141	379
Magnesium	6,040	7,100	4,260	6,530	4,520
Manganese	301	431	200	492	343
Mercury	0.117	0.144	<0.05	0.114	0.280
Nickel	32.0	48.0	32.1	49.4	37.0
Potassium	1,190	1,210	621	706	1,660
Sodium	436	355	168	144	206
Vanadium	34.4	45.0	35.3	36.4	41.6
Zinc	376	763	212	254	428
VOLATILE ORGANICS (μg/g)					
1,3-Dimethylbenzene/ m-Xylene	0.72	<0.23	<0.23	<0.23	<0.23
Toluene	0.73	<0.10	0.38	0.31	0.40
Xylene	1.1	<0.78	<0.78	<0.78	<0.78
SEMIVOLATILE ORGANICS (μg/g)					
Benzo[a]anthracene	<0.41[a]	0.82[a]	10[a]	<0.41[a]	<0.41[a]
Benzo[b]fluoranthene	<3.1[a]	<3.1[a]	30[a]	<3.1[a]	<3.1[a]
Benzo[k]fluoranthene	<1.3[a]	<1.3[a]	30[a]	<1.3[a]	<1.3[a]
Benzo[g,h,i]perylene	<1.8[a]	<1.8[a]	10[a]	<1.8[a]	<1.8[a]
Chrysene	<0.32[a]	0.9[a]	20[a]	<0.32[a]	<0.32[a]
Dibenz[a,h]anthracene	<3.1[a]	<3.1[a]	4[a]	<3.1[a]	<3.1[a]
Fluoranthene	0.4[a]	2[a]	50	0.9[a]	1[a]
Fluorene	<0.65[a]	<0.65[a]	8[a]	<0.65[a]	<0.65[a]
Phenanthrene	0.8[a]	2[a]	50[a]	0.8[a]	0.8[a]
Pyrene	<0.83[a]	2[a]	40[a]	<0.83[a]	2[a]
TOTAL PETROLEUM HYDROCARBONS (μg/g)	20,000[a]	10,000[a]	300[a]	100	20,000[a]

μg/g = micrograms per gram
[a] = diluted sample
< = less than certified reporting limit

Table 10.5-5 Summary of Soil Boring Sample Detections, Building 995, Fort Point Coast Guard Station, Follow-on RI
(page 1 of 1)

Sample ID	995SB01	995SB01	995SB02	995SB03	995SB03
Sample Depth (ft bgs)	2.0	4.0	2.0	2.0	4.0
Sample Date	12/05/94	12/05/94	12/05/94	12/05/94	12/05/94
SEMIVOLATILE ORGANICS (µg/g)					
Polyaromatic Hydrocarbons					
No detections above reporting limit					
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH-diesel fraction					
No detections above reporting limit					
TPH-gas fraction					
No detections above reporting limit					

µg/g = microgram per gram

Table 10.5-6 Summary of Groundwater Sample Detections, Fort Point Coast Guard Station, Supplemental RI
(page 1 of 2)

Sample ID Sample Date	CGGW01 08/27/92 (Filtered Inorganics)	CGGW02 09/01/92 (Filtered Inorganics)	CGGW03 08/24/92 (Filtered Inorganics)	CGGW03 08/24/92 (Unfiltered Inorganics)
INORGANICS (μg/L)				
Arsenic	2.880	4.260	3.840	3.940
Barium	14.200	36.200	71.800	87.100
Calcium	81300.000	71900.000	191000.000	226000.000
Iron	166.000	<38.800	<38.800[f]	112.000[f]
Lead	11.300	2.280	1.410[f]	8.350[f]
Magnesium	106000.000	45500.000	212000.000	255000.000
Manganese	449.000	<2.750[d]	712.000[d]	906.000[d]
Nickel	<34.300	11.400[d]	27.600[d]	24.100[d]
Potassium	20200.000	11700.000	24300.000	27200.000
Sodium	227000.000	151000.000	1300000.000	1400000.000
Vanadium	17.700	13.600	30.800	32.900
MISCELLANEOUS PARAMETERS (μg/L)				
Alkalinity				
Total	486000.000	195000.000	291000.000	
Bicarbonate	398000.000	193000.000	239000.000	
Carbonate	<2500.000	<2500.000	<2500.000	
Hydroxide	22.000	62.000	32.000	
Chloride	550000.000[a]	250000.000[a]	1800000.000[a]	
Nitrate	3200.000[a]	850.000[a]	1100.000[a]	
Sulfate	<25000.000[a]	65000.000[a]	270000.000[a]	
TDS	1400000.000	853000.000	3800000.000	

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit
[f] = data affected by blank contamination

Table 10.5-6 Summary of Groundwater Sample Detections, Fort Point Coast Guard Station, Supplemental RI (page 2 of 2)

Sample ID	CGGW01	CGGW02	CGGW03
Sample Date	08/27/92	09/01/92	08/24/92
VOLATILE ORGANICS			
No detections above certified reporting limit or method detection limit			
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			
ORGANOCHLORINE PESTICIDES[c] (µg/L)			
beta-BHC	0.040[d]	<0.050	<0.050
POLYCHLORINATED BIPHENYLS			
No detections above certified reporting limit			
CHLORINATED HERBICIDES			
No detections above method detection limit			
TOTAL PETROLEUM HYDROCARBONS (µg/L)			
TPH-diesel fraction	<50.000	80.000	<50.000

µg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination

Table 10.5-7 Summary of Groundwater Sample Detections, Fort Point Coast Guard Station, Follow-on RI (page 1 of 3)

Sample ID	CGGW01	CGGW01	CGGW02	CGGW02	CGGW03	CGGW03
Sample Depth (ft bgs)	7.0	10.0	4.0	9.0	7.0	11.0
Sample Date	01/04/95	11/11/94	01/11/95	11/07/94	01/04/95	11/10/94
INORGANICS (µg/L)						
Aluminum	NA	877	NA	3650	NA	262f
Antimony	NA	3.26[f]	NA	<1.11	NA	<1.11
Antimony (F)	NA	10.6	NA	7.20	NA	4.70
Arsenic	NA	4.41[f]	NA	6.82[n]	NA	7.50
Arsenic (F)	NA	<1.70	NA	5.00[n]	NA	6.00
Barium	NA	10.0	NA	15.0	NA	53.0
Barium (F)	NA	<11.0	NA	<11.0	NA	40.0
Beryllium	NA	1.00[f]	NA	<1.00	NA	1.00[f]
Cadmium	NA	<3.00	NA	<3.00	NA	62.0
Calcium	NA	41800	NA	55400	NA	128000
Calcium (F)	NA	47700	NA	62200	NA	135000
Chromium	NA	9.00	NA	11.0	NA	7.00
Chromium (F)	NA	5.00	NA	<5.00	NA	<5.00
Copper	NA	<1.00	NA	5.25[f]	NA	3.12[f]
Copper (F)	NA	9.33	NA	8.35	NA	3.92
Cyanide	NA	<5.00	NA	6.10	NA	5.10[n]
Iron	NA	1250	NA	3020	NA	1480
Iron (F)	NA	136	NA	<8.00	NA	696
Lead	NA	0.798[f]	NA	9.43[f]	NA	2.36[f]
Magnesium	NA	58500	NA	36800	NA	171000
Magnesium (F)	NA	61200	NA	46800	NA	177000
Manganese	NA	196	NA	107	NA	1030
Manganese (F)	NA	178	NA	9.00	NA	777
Mercury	NA	<0.110	NA	<0.110	NA	0.500[f]
Nickel	NA	44.4[f]	NA	24.6	NA	23.3[n]

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 10.5-7 Summary of Groundwater Sample Detections, Fort Point Coast Guard Station, Follow-on RI (page 2 of 3)

Sample ID	CGGW01	CGGW01	CGGW02	CGGW02	CGGW03	CGGW03
Sample Depth (ft bgs)	7.0	10.0	4.0	9.0	7.0	11.0
Sample Date	01/04/95	11/11/94	01/11/95	11/07/94	01/04/95	11/10/94
INORGANICS (µg/L)						
Nickel (F)	NA	9.00	NA	9.80	NA	15.1
Potassium	NA	11200[f]	NA	7590	NA	20700
Potassium (F)	NA	11500	NA	8950	NA	18700
Selenium (F)	NA	2.70	NA	<1.72	NA	<34.4[a]
Silver	NA	<2.00	NA	<2.00[p]	NA	11.0[f]
Sodium	NA	231000	NA	181000	NA	643000
Sodium (F)	NA	240000	NA	256000	NA	700000
Thallium	NA	<0.811	NA	0.840[f]	NA	<0.811
Vanadium	NA	<4.00	NA	9.00	NA	<4.00
Zinc	NA	95.0	NA	38.0	NA	35.0
Zinc (F)	NA	11.0	NA	5.00	NA	<4.00
MISCELLANEOUS PARAMETERS (µg/L)						
Alkalinity (Total as CaCO3)	NA	332000	NA	110000	NA	281000
Bicarbonate Alkalinity	NA	332000	NA	110000	NA	281000
Chloride	NA	49800	NA	349000	NA	3610000
Nitrate	NA	<41.0	NA	981	NA	366
Sulfate	NA	47700	NA	35700	NA	245000
Total Dissolved Solids	NA	1090000	NA	690000	NA	2950000
VOLATILE ORGANICS (µg/L)						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ted value
[p] = unreliable data

Table 10.5-7 Summary of Groundwater Sample Detections, Fort Point Coast Guard Station, Follow-on RI (page 3 of 3)

Sample ID	CGGW01	CGGW01	CGGW02	CGGW02	CGGW03	CGGW03
Sample Depth (ft bgs)	7.0	10.0	4.0	9.0	7.0	11.0
Sample Date	01/04/95	11/11/94	01/11/95	11/07/94	01/04/95	11/10/94
SEMIVOLATILE ORGANICS (µg/L)						
Bis(2-ethylhexyl) phthalate	NA	3.77[f]	NA	7.46[f]	NA	9.78[f]
ORGANOCHLORINE PESTICIDES (µg/L)						
No detections above reporting limit						
POLYCHLORINATED BIPHENYLS (µg/L)						
No detections above reporting limit						
CHLORINATED HERBICIDES (µg/L)						
No detections above reporting limit						
TOTAL PETROLEUM HYDROCARBONS (µg/L)						
TPH-diesel fraction						
No detections above reporting limit						
TPH-gas fraction						
No detections above reporting limit						

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

Table 10.5-8 Summary of Soil Boring Sample Detections, Building 996, Fort Point Coast Guard Station, Follow-on RI (page 1 of 1)

Sample ID	996SB01	996SB01	996SB02	996SB02	996SB03	996SB03
Sample Depth (ft bgs)	2.0	4.0	2.0	4.0	2.0	3.5
Sample Date	12/05/94	12/05/94	12/05/94	12/05/94	12/05/94	12/05/94
INORGANICS (µg/g)						
Lead	NA	NA	NA	25.5	NA	135
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH (immunoassay)						
No detections above reporting limit						
TPH-diesel fraction						
No detections above reporting limit						
TPH-gas fraction						
No detections above reporting limit						

µg/g = microgram per gram

NA = not analyzed

Table [redacted] Comparison of California Secondary Maximum Contaminan[redacted]ls (MCLs) and Groundwater Detections, Fort Point Coast Guard[redacted]n

	PARAMETERS				
	Specific Conductance (μmhos/cm)	Total Dissolved Solids (mg/L)	Sulfate (μg/L)	Chloride (μg/L)	Manganese (μg/L)
California Secondary MCL	900	500	250,000	250,000	50
SITE ID					
CGGW01	**2,080**	**1,400**	<25,000	**550,000**	**449**
CGGW02	**1,110**	**853**	65,000	250,000	<2.75
CGGW03	**11,100**	**3,800**	**270,000**	**1,800,000**	**712**

μg/L = micrograms per liter
μmhos/cm = micromhos per centimeter
< = less than certified reporting limit

NOTES: 1) Bold values exceed California Secondary MCL
2) Metals not detected above California Secondary MCLs in any groundwater samples are copper, iron, and zinc

Table 10.6-1 Summary of Sediment Sample Detections, Lobos Creek, Initial RI

Site ID	LCSD01	LCSD02	LCSD03
Sample Date	11/01/90	11/01/90	11/01/90
INORGANICS (μg/g)			
Aluminum	6,530	6,470	5,600
Arsenic	<2.50	14.6	<2.50
Barium	16.7	18.3	16.8
Calcium	8,180	5,960	4,370
Chromium	77.0	40.6	47.8
Cobalt	6.94	4.82	5.26
Copper	<2.84	<2.84	8.38
Iron	26,300	11,500	14,300
Lead	<7.44	<7.44	<7.44
Magnesium	2,330	2,460	2,520
Manganese	180	279	319
Mercury	<0.050	<0.050	<0.050
Nickel	18.5	20.6	26.8
Potassium	273	474	333
Sodium	140	169	128
Vanadium	69.4	31.8	39.3
Zinc	26.3	20.2	30.9
VOLATILE ORGANICS			
No detections above certified reporting limit			
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			
PESTICIDES (μg/g)			
Aldrin	<0.001	<0.001	<0.001
Lindane	<0.001	<0.001	<0.001

μg/g = micrograms per gram
< = less than certified reporting limit
* = GCMS analysis
(c) = confirmed pesticide detection

Table 10.6-2 Summary of Surface-Water Sample Detections, Lobos Creek, Initial RI

Sample ID Sample Date(s)	LCSW01 10/31/90	LCSW01 04/17/92	LCSW02 10/31/90	LCSW03 10/31/90	LCSW04 10/30/90	LCSW05 10/30/90
INORGANICS (μg/L)						
Barium	10.2	8.47	7.15	11.7	22.6	22.6
Boron	374	<50.0	<230	<230	<230	<230
Calcium	27,300	28,000[a]	24,500	30,500	28,100	29,200
Cyanide	<5.00**	NA	<5.00**	<5.00**	<5.00**	<5.00**
Iron	165	<112	<77.5	<77.5	<77.5	<77.5
Lead	<4.47	<4.54	<4.47	<4.47	8.55	<4.47
Magnesium	40,000	41,000[a]	33,000	22,800	34,900	36,900
Manganese	135	129	56.8	55.5	<9.67	<9.67
Potassium	3,320	3,230	1,680	5,190	5,410	2,760
Sodium	30,000	34,000[a]	29,100	36,300	34,100	36,400
Vanadium	<27.6	13.0	<27.6	<27.6	<27.6	<27.6
MISCELLANEOUS PARAMETERS (μg/L)						
Alkalinity/Bicarbonate	NA	225,000	NA	NA	NA	NA
Chloride	49,000[a]	50,000[a]	54,000[a]	54,000[a]	67,000[a]	76,000[a]
Fluoride	1,080	NA	482	525	528	488
Nitrate	7,300[a]	2,800[a]	NA	11,000[a]	15,000[a]	14,000[a]
Sulfate	64,000[a]	51,600	62,000[a]	61,000[a]	53,000[a]	58,000[a]
Total Dissolved Solids	340,000[h]	379,000	340,000[h]	380,000[h]	360,000[h]	370,000[h]
Fecal Coliform*	9,000	NA	1,000	3,000	300	20,000[a]
Total Coliform*	GT 16,000	NA	5,000	20,000	2,000	GT 20,000
VOLATILE ORGANICS No detections above certified reporting limit						
SEMIVOLATILE ORGANICS (μg/L)						
Bis(2-ethylhexyl)phthalate	<7.7	1.1	<7.7	<7.7	<7.7	<7.7
PESTICIDES (μg/L)						
Heptachlor	<0.003	<0.042	<0.003	<0.003	<0.003	<0.003
TOTAL PETROLEUM HYDROCARBONS						
TPH	NA	<200[h]	NA	NA	NA	NA

μg/L = micrograms per liter
GT = greater than upper certified reporting limit
< = less than certified reporting limit
NA = not analyzed
* = samples collected 11/01/90
** = samples collected 11/13/90
[a] = diluted sample
[h] = error in electronic database

Table 10.6-3 Summary of Filtered and Unfiltered Metal Detections in Surface Water, Lobos Creek, Supplemental RI

Sample ID Sample Date	LCSW01 04/17/92 FILTERED	LCSW01 04/17/92 UNFILTERED
INORGANICS (μg/L)		
Barium	8.47	13.5
Calcium	28,000[a]	27,000[a]
Iron	< 112	3,190
Magnesium	41,000[a]	41,000[a]
Manganese	129	236
Potassium	3,230	3,190
Sodium	34,000[a]	33,000[a]
Vanadium	13.0	13.0

[a] = diluted sample
μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit

Table 10.7-1 Summary of Groundwater Sample Detections, Golf Course Irrigation Well 316GW01

Site ID		316GW01
Sample Date		02/08/91
Sample Depth		200 ft bgs
INORGANICS: filtered, except for cyanide (μg/L)		
Barium		60.8
Calcium		39,900
Magnesium		84,900
Sodium		98,000
Zinc		21.8
MISCELLANEOUS PARAMETERS (μg/L)		
Alkalinity		
	Bicarbonate	702,000
	Carbonate	< 10,000
	Hydroxide	< 10,000
Chloride		170,000
Nitrate		5,600
Sulfate		99,000
Fluoride		901
ORGANOCHLORINE PESTICIDES		
	No detections above certified reporting limit	
SEMIVOLATILE ORGANICS		
	No detections above certified reporting limit	
POLYCHLORINATED BIPHENYLS		
	No detections above certified reporting limit	

μg/L = micrograms per liter
< = less than certified reporting limit

Table 10.7-2 Summary of Sediment Sample Detections, Mountain Lake, Initial RI

Site ID	MLSD01	MLSD02	MLSD03	MLSD04
Sample Date	10/29/90	10/29/90	10/29/90	10/29/90
INORGANICS (μg/g)				
Aluminum	6,440	6,640	5,920	7,530
Arsenic	<2.50	<2.50	<2.50	<2.50
Barium	24.0	26.8	27.7	28.5
Calcium	6,830	6,740	5,830	4,430
Chromium	51.2	73.9	50.1	74.3
Cobalt	6.58	5.50	5.09	6.40
Copper	4.71	6.09	5.16	6.85
Iron	16,700	14,900	11,400	12,200
Lead	19.2	25.3	34.4	<7.44
Magnesium	2,750	2,750	2,470	1,890
Manganese	182	157	113	94.8
Mercury	<0.050	0.069	<0.050	<0.050
Nickel	20.7	21.6	19.1	21.3
Potassium	435	298	397	
Sodium	160	172	179	179
Vanadium	50.1	44.8	36.0	66.3
Zinc	36.7	24.1	21.5	21.2
VOLATILE ORGANICS				
No detections above certified reporting limit				
SEMIVOLATILE ORGANICS				
No detections above certified reporting limit				
PESTICIDES (μg/g)				
Aldrin	<0.001	0.003(c)	<0.001	<0.001
Lindane	0.003(c)	<0.001	<0.001	<0.001

μg/g = micrograms per gram
< = less than certified reporting limit
* = GCMS analysis
(c) = confirmed pesticide detection

Table 10.7-3 Summary of Surface-Water Sample Detections, Mountain Lake, Initial RI

Sample ID	MLSW01	MLSW01
Sample Date(s)	10/29/90	04/17/92
INORGANICS (μg/L)		
Barium	56.4	47.4
Boron	<230	<50.0
Calcium	38,300	29,000[a]
Cyanide	8.14	NA
Iron	214	<112
Lead	9.09	<4.54
Magnesium	54,700	35,000[a]
Manganese	378	296
Potassium	2,680	3,020
Sodium	76,700	52,000[a]
Vanadium	<27.6	11.1
MISCELLANEOUS PARAMETERS (μg/L)		
Alkalinity/Bicarbonate	NA	200,000
Chloride	142,000	86,000[a]
Fluoride	877	NA
Nitrate	372	470[a]
Sulfate	44,100	40,900
Total Dissolved Solids	620,000[h]	392,000
Fecal Coliform*	3,000	NA
Total Coliform*	9,000	NA
VOLATILE ORGANICS		
No detections above certified reporting limit		
SEMIVOLATILE ORGANICS (μg/L)		
Bis(2-ethylhexyl)phthalate	<7.7	1.3
PESTICIDES (μg/L)		
Heptachlor	0.009(c)	<0.042
TOTAL PETROLEUM HYDROCARBONS		
TPH	NA	1,000

μg/L = micrograms per liter
GT = greater than upper certified reporting limit
< = less than certified reporting limit
NA = not analyzed
* = samples collected 11/01/90
** = samples collected 11/13/90
[a] = diluted sample
(c) = confirmed pesticide detection
[h] = error in electronic database

Table 10.7-4 Summary of Filtered and Unfiltered Metal Detections in Surface Water, Mountain Lake, Supplemental RI

Sample ID	MLSW01	MLSW01
Sample Date	04/17/92	04/17/92
	FILTERED	UNFILTERED
INORGANICS (μg/L)		
Barium	47.4	46.5
Calcium	29,000[a]	27,000[a]
Iron	<112	492
Magnesium	35,000[a]	33,000[a]
Manganese	296	306
Potassium	3,020	3,330
Sodium	52,000[a]	49,000[a]
Vanadium	11.1	13.0

[a] = diluted sample
μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit

Table 10.7-5 Summary of Surface-Water Sample Detections, Mountain Lake, Follow-on RI (page 1 of 1)

Sample ID	MLSW02	MLSW03	MLSW04	MLSW05
Sample Depth (ft bgs)	0.0	0.0	0.0	0.0
Sample Date	01/04/95	01/04/95	01/04/95	01/04/95
TOTAL PETROLEUM HYDROCARBONS (µg/L)				
TPH-diesel fraction	60	<50	<50	51
TPH-gas fraction				
No detections above reporting limit				

µg/L = microgram per Liter
< = less than reporting limit

Table 10.7-6 Summary of Discrete Groundwater Sample Detections, Mountain Lake, Follow-on RI (page 1 of 1)

Sample ID	MLSB01	MLSB01	MLSB02	MLSB02
Sample Depth (ft bgs)	25.0	35.0	22.0	32.0
Sample Date	04/11/95	04/11/95	04/12/95	04/12/95
MISCELLANEOUS PARAMETERS (µg/L)				
Nitrate	11900[a]	9250	3560[a]	4310
No detections above reporting limit				
CHLORINATED HERBICIDES (µg/L)				
No detections above reporting limit				

µg/L = microgram per Liter

[a] = diluted sample

Table 11.4-1 Summary of Wipe Sample Detections, GGBHTD Study Area, Supplemental RI

Sample ID Sample Date	GGW01 09/10/92	GGW02 09/10/92	GGW04 09/10/92
POLYCHLORINATED BIPHENYLS (μg/g)			
PCB 1260	<0.500	1.580	17.000[j]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
j = estimated value - above upper quantitation limit

Table 11.4-2 Summary of Soil Boring Sample Detections, UST Area, GGBHTD Study Area, Supplemental RI (page 1 of 4)

Sample ID	GGGW01	GGGW01	GGGW02	GGGW03	GGGW03	GGGW04
Sample Depth (ft bgs)	3.0	18.0	13.6	2.0	15.0	2.5
Sample Date	07/24/92	07/24/92	07/22/92	07/23/92	07/23/92	07/21/92
INORGANICS (μg/g)						
Aluminum	8700.000[a]	13000.000[a]	8100.000[a]	9100.000[a]	15000.000[a]	17000.000[a]
Antimony	<41.300	<41.300	195.000	<41.300	<41.300	<41.300
Arsenic	2.030	4.700[a]	1.530[f]	2.990	3.500[a]	3.200[a]
Barium	444.000	77.700	10.000	47.000	83.600	80.200
Beryllium	1.100	1.210	<0.500	1.030	1.180	1.240
Cadmium	0.858	0.715	2.380	0.628	1.000	<0.515
Calcium	5430.000	3100.000	615.000	3390.000	4690.000	1650.000
Chromium	69.700	134.000	1590.000	81.100	213.000	94.800
Cobalt	29.900	40.000	136.000	26.500	51.500	32.300
Copper	42.300	19.100	44.800	11.100[f]	23.600	27.300
Iron	25000.000[a]	29000.000[a]	46000.000[a]	20000.000[a]	34000.000[a]	27000.000[a]
Lead	100.000[a]	4.220	0.769	25.000[a]	3.500	4.290
Magnesium	3840.000	4620.000	240000.000[a]	2760.000	7200.000[a]	4770.000
Manganese	590.000	464.000	613.000[a]	273.000[f]	558.000	350.000
Mercury	0.040	0.031	<0.027	0.029	<0.027	<0.027
Nickel	55.800	158.000	2100.000	43.700	264.000	78.500

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
h = error in electronic database
j = estimated value - above upper quantitation limit
k = data not verified by other lab results

Table 11.4-2 Summary of Soil Boring Sample Detections, UST Area, GGBHTD Study Area, Supplemental RI (page 2 of 4)

Sample ID	GGGW01	GGGW01	GGGW02	GGGW03	GGGW03	GGGW04
Sample Depth (ft bgs)	3.0	18.0	13.6	2.0	15.0	2.5
Sample Date	07/24/92	07/24/92	07/22/92	07/23/92	07/23/92	07/21/92
INORGANICS (continued) (μg/g)						
Potassium	824.000	611.000	<119.000	460.000	822.000	714.000
Sodium	263.000[k]	315.000[k]	259.000[k]	234.000[k]	439.000[k]	505.000[k]
Thallium	97.300[k]	126.000[k]	211.000[k]	83.800[k]	144.000[k]	103.000[k]
Vanadium	62.400	79.100	51.600	60.700	76.300	70.300
Zinc	102.000	44.900	53.500	33.500	56.500	46.100
VOLATILE ORGANICS (μg/g)						
Benzene	<0.002	0.550[j]	<0.002	3.700[j]	0.130	<0.002
Ethyl benzene	<0.002	1.500[j]	<0.002	<0.002	0.590[j]	<0.002
Methyl ethyl ketone	0.006	0.022	<0.005	<0.005	<0.005	<0.005
Toluene	<0.002	0.031	<0.002	<0.002	0.920[j]	<0.002
Xylenes (total)	<0.002	2.200[j]	<0.002	<0.002	1.70[j]	<0.002

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
[a] = diluted sample
[c] = all detections are confirmed
[f] = data affected by blank contamination
[h] = error in electronic database
[j] = estimated value - above upper quantitation limit
[k] = data not verified by other lab results

Table 11.4-2 Summary of Soil Boring Sample Detections, UST Area, GGBHTD Study Area, Supplemental RI (page 3 of 4)

Sample ID	GGGW01	GGGW01	GGGW02	GGGW03	GGGW03	GGGW04
Sample Depth (ft bgs)	3.0	18.0	13.6	2.0	15.0	2.5
Sample Date	07/24/92	07/24/92	07/22/92	07/23/92	07/23/92	07/21/92
SEMIVOLATILE ORGANICS (µg/g)						
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	0.056	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	0.042	<0.033	<0.033
2-Methylnaphthalene	<0.033	4.200	<0.033	<0.033	0.410	<0.033
Naphthalene	<0.033	2.000[a]	<0.033	<0.033	0.180	<0.033
Phenanthrene	<0.033	0.062	<0.033	0.052	<0.033	<0.033
Pyrene	<0.033	<0.033	<0.033	0.065	<0.033	<0.033
ORGANOCHLORINE PESTICIDES[c] (µg/g)						
alpha-BHC	<0.003	0.008	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)						
No detections above certified reporting limit						

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
h = error in electronic database
j = estimated value - above upper quantitation limit
l = data not verified by other lab results

Table 11.4-2 Summary of Soil Boring Sample Detections, UST Area, GGBHTD Study Area, Supplemental RI (page 4 of 4)

Sample ID	GGGW01	GGGW01	GGGW02	GGGW03	GGGW03	GGGW04
Sample Depth (ft bgs)	3.0	18.0	13.6	2.0	15.0	2.5
Sample Date	07/24/92	07/24/92	07/22/92	07/23/92	07/23/92	07/21/92
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	9.000	450.000	480.000 h	2.000	5.000	<1.000 h
TPH-gas fraction	<1.000	210.000 a	2.000 h	1.000	95.000 a	<1.000 h

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
h = error in electronic database
j = estimated value - above upper quantitation limit
k = data not verified by other lab results

Table 11.4-3 Summary of Groundwater Sample Detections, UST Area, GGBHTD Study Area, Supplemental RI

Sample ID	GGGW02	GGGW03
Sample Date	09/02/92	09/02/92
INORGANICS: filtered, except for cyanide and mercury (μg/L)		
Arsenic	4.370	NA
Barium	42.700	NA
Calcium	47600.000	NA
Magnesium	99700.000	NA
Manganese	328.000	NA
Nickel	14.900[d]	NA
Potassium	5330.000	NA
Sodium	123000.000	NA
Vanadium	22.000	NA
MISCELLANEOUS PARAMETERS (μg/L)		
Alkalinity		
Total	573000.000	NA
Bicarbonate	567000.000	NA
Carbonate	5090.000	NA
Hydroxide	48.000	NA
Chloride	140000.000[a]	NA
Nitrate	400.000[a]	NA
Sulfate	44000.000[a]	NA
TDS	887000.000	NA
VOLATILE ORGANICS (μg/L)		
Benzene	23.000	1500.000
Ethyl benzene	<2.000	4000.000
Methyl ethyl ketone	7.900	231.000[j]
Toluene	<2.000	30000.000
Xylenes	<11.000	20000.000
SEMIVOLATILE ORGANICS	ND	NA
ORGANOCHLORINE PESTICIDES[c] (μg/L)		
alpha-BHC	0.040[d]	NA
beta-BHC	0.030[d]	NA
delta-BHC	0.040[d]	NA
POLYCHLORINATED BIPHENYLS	ND	NA
CHLORINATED HERBICIDES	ND	NA
TOTAL PETROLEUM HYDROCARBONS (μg/L)		
TPH-diesel fraction	740.000	NA
TPH-gas fraction	50.000	89000.00

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
NA = not analyzed
ND = no detections above certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
j = estimated value - above upper quantitation limit

Table 11.4-4 Summary of Sediment Sample Detections, Paint Operations Area, GGBHTD Study Area, Supplemental RI (page 1 of 2)

Sample ID	GGSD01	GGSD02
Sample Depth (ft bgs)	0.0	0.1
Sample Date	09/03/92	08/20/92
INORGANICS (μg/g)		
Aluminum	6180.000	7560.000
Arsenic	5.080	4.280
Barium	270.000	172.000
Cadmium	2.630	2.880
Calcium	21000.000[a]	17000.000[a]
Chromium	79.900	95.000
Cobalt	13.600	11.800
Copper	124.000	77.300
Iron	23000.000[a]	24000.000[a]
Lead	440.000[a]	880.000[a]
Magnesium	7510.000	7100.000
Manganese	387.000	328.000
Mercury	0.200	0.235
Nickel	97.400	108.000
Potassium	1070.000	1390.000
Selenium	<0.250	1.180
Silver	<0.521	1.180
Sodium	453.000	540.000
Thallium	<14.700	114.000[k]
Vanadium	30.100	55.400
Zinc	8000.000[a]	3700.000
VOLATILE ORGANICS (μg/g)		
Acetone	0.520[j]	<0.046
Benzene	0.093	<0.002
Ethyl benzene	0.250	<0.002
Methyl ethyl ketone	0.037	<0.005
Toluene	3.300[j]	<0.002
Xylenes (total)	1.200[j]	<0.002

μg/g = microgram per gram
< = less than certified reporting limit or method detection level
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
h = error in electronic data base
j = estimated value - above upper quantitation limit
k = data not verified by other lab results

Table 11.4-4 Summary of Sediment Sample Detections, Paint Operations Area, GGBHTD Study Area, Supplemental RI (page 2 of 2)

Sample ID	GGSD01	GGSD02
Sample Depth (ft bgs)	0.0	0.10
Sample Date	09/03/92	08/20/92
SEMIVOLATILE ORGANICS (continued) (μg/g)		
Acenaphthylene	0.064	0.160
Anthracene	<0.200[a]	0.340
Benzo(b)fluoranthene	<0.200[a]	0.810
Benzo(a)pyrene	<0.200[a]	0.200
Bis(2-ethylhexyl)phthalate	10.000[a]	50.000[a]
Butylbenzylphthalate	5.000[a]	2.400
Fluoranthene	<0.400[a]	1.900
2-Methylnaphthalene	0.550	<0.033
Naphthalene	0.640	<0.033
Phenanthrene	0.800[a]	1.000
Pyrene	3.000[a]	4.280[j]
ORGANOCHLORINE PESTICIDES[c] (μg/g)		
delta-BHC	<0.300	0.003
ppDDD	<0.060[a]	0.004
ppDDE	<0.060[a]	0.020
Dieldrin	<0.060[a]	0.004
POLYCHLORINATED BIPHENYLS (μg/g)		
PCB-1260	0.424	0.169
CHLORINATED HERBICIDES		
No detections above method detection limit		
TOTAL PETROLEUM HYDROCARBONS (μg/g)		
TPH-diesel fraction	740.000	80.000
TPH-gas fraction	20.000	16.000[h]

μg/g = microgram per gram
< = less than certified reporting limit or method detection level
GT = greater than upper certified reporting limit
[a] = diluted sample
[c] = all detections are confirmed
[h] = error in electronic data base
[j] = estimated value - above upper quantitation limit
[k] = data not verified by other lab results

Table 11.4-5 Summary of Soil Boring Sample Detections, Paint Operations Area, GGBHTD Study Area, Supplemental RI (page 1 of 3)

Sample ID	GGSB01	GGSB01	GGSB02	GGSB02	GGSB03	GGSB03
Sample Depth (ft bgs)	0.8	7.5	0.0	2.0	0.4	2.2
Sample Date	08/04/92	08/04/92	08/04/92	08/04/92	08/31/92	08/31/92
INORGANICS (μg/g)						
Aluminum	14000.000[a]	10000.000[a]	12000.000[a]	13000.000[a]	12000.000[a]	16000.000[a]
Antimony	<41.300	167.000	<41.300	<41.300	<41.300	<41.300
Arsenic	6.430	3.910	3.410	3.650	3.870	8.430
Barium	134.000	66.300	87.900	101.000	168.000	116.000
Beryllium	1.230	1.080	0.992	1.240	<0.500	0.681
Cadmium	1.130	4.950	<0.515	<0.515	<0.515	<0.515
Calcium	4240.000	2230.000	4570.000	2810.000	2010.000	2930.000
Chromium	454.000	1310.000	80.800	88.500	82.900	126.000
Cobalt	63.300	191.000	30.900	36.200	11.500	18.300
Copper	28.500	50.100	24.000	25.700	22.800	20.700
Iron	39000.000[a]	70000.000[a]	22000.000[a]	28000.000[a]	24000.000[a]	32000.000[a]
Lead	4.940	3.440	27.000[a]	19.000[a]	4.710	8.200
Magnesium	7500.000[a]	150000.000[a]	3320.000	3250.000	3300.000	5900.000
Manganese	911.000	1200.000	321.000	338.000	237.000	530.000
Mercury	0.034	0.067	0.122	0.047	<0.027	<0.027
Nickel	284.000	3350.000	59.800	53.100	76.100	157.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
k = data not verified by other lab results

Table 11.4-5 Summary of Soil Boring Sample Detections, Paint Operations Area, GGBHTD Study Area, Supplemental RI (page 2 of 3)

Sample ID	GGSB01	GGSB01	GGSB02	GGSB02	GGSB03	GGSB03
Sample Depth (ft bgs)	0.8	7.5	0.0	2.0	0.4	2.2
Sample Date	08/04/92	08/04/92	08/04/92	08/04/92	08/31/92	08/31/92
INORGANICS (continued) (μg/g)						
Potassium	871.000	197.000	647.000	631.000	527.000	1060.000
Silver	1.970	2.530	1.430	1.650	<0.521	<0.521
Sodium	365.000[k]	701.000[k]	154.000[k]	191.000[k]	216.000	535.000
Thallium	118.000[k]	238.000[k]	74.400[k]	90.900[k]	<14.700	<14.700
Vanadium	91.400	98.600	64.100	80.400	54.800	56.600
Zinc	63.700	75.400	445.000	80.400	35.900	61.500
VOLATILE ORGANICS						
No detections above certified reporting limit						
SEMIVOLATILE ORGANICS (μg/g)						
Benzo(a)pyrene	<0.033	<0.033	0.038[e]	<0.033	<0.200[a]	<0.033
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	2.100	4.300
Phenanthrene	<0.033	<0.033	0.040[e]	<0.033	<0.033	<0.033
Pyrene	<0.033	<0.033	0.042[e]	<0.033	<0.200[a]	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit
[e] = estimated value - method 99
[k] = data not verified by other lab results

Table 11.4-5 Summary of Soil Boring Sample Detections, Paint Operations Area, GGBHTD Study Area, Supplemental RI (page 3 of 3)

Sample ID	GGSB01	GGSB01	GGSB02	GGSB02	GGSB03	GGSB03
Sample Depth (ft bgs)	0.8	7.5	0.0	2.0	0.4	2.2
Sample Date	08/04/92	08/04/92	08/04/92	08/04/92	08/31/92	08/31/92
ORGANOCHLORINE PESTICIDES[c] (µg/g)						
gamma-BHC (Lindane)	<0.003	<0.003	<0.003	<0.003	0.003	<0.003
ppDDE	<0.006	<0.006	0.005[d]	<0.006	<0.006	<0.006
ppDDT	<0.006	0.004[d]	<0.006	<0.006	<0.006	<0.006
Endrin	<0.006	<0.006	0.004[d]	<0.006	<0.006	<0.006
POLYCHLORINATED BIPHENYLS						
No detections above certified reporting limit						
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction	2.000	4.000	13.000	4.000	270.000	12.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
k = data not verified by other lab results

Table 11.4-6 Summary of Sediment Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 1 of 2)

Sample ID	GGSD03	GGSD04	GGSD05
Sample Depth (ft bgs)	0.0	0.0	0.0
Sample Date	09/03/92	09/03/92	09/03/92
INORGANICS (μg/g)			
Aluminum	440.000	2650.000	4660.000
Arsenic	<0.250	2.060	2.120
Barium	11.600[f]	89.300	71.000
Cadmium	<0.515	<0.515	3.940
Calcium	429.000[f]	2490.000	16000.000[a]
Chromium	6.780[f]	67.600[f]	35.300[f]
Cobalt	1.750[f]	4.520[f]	5.120[f]
Copper	4.650[f]	17.600	12.800
Iron	2290.000	7200.000[a]	9100.000[a]
Lead	36.000[a]	100.000[a]	140.000[a]
Magnesium	147.000[f]	1540.000[f]	2670.000[f]
Manganese	27.500[f]	174.000[f]	179.000[f]
Mercury	<0.027	0.046	0.054
Nickel	<1.540	19.700	20.100
Potassium	136.000	568.000	691.000
Sodium	146.000	177.000	322.000
Vanadium	3.840	14.600	17.800
Zinc	1210.000	783.000	GT 21900.000[a,j]
VOLATILE ORGANICS (μg/g)			
Acetone	GT 0.200	<0.046	<0.046
Toluene	<0.002	<0.002	0.006

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit
[f] = data affected by blank contamination
[j] = estimated value - above upper quantitation limit

Table 11.4-6 Summary of Sediment Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 2 of 2)

Sample ID	GGSD03	GGSD04	GGSD05
Sample Depth (ft bgs)	0.0	0.0	0.0
Sample Date	09/03/92	09/03/92	09/03/92
SEMIVOLATILE ORGANICS (µg/g)			
Acenaphthene	<0.033	0.140	<0.033
Bis(2-ethylhexyl) phthalate	0.970	4.500	2.400
Butylbenzylphthalate	0.390	1.200	0.380
Fluoranthene	<0.085	0.110	<0.085
Fluorene	<0.033	0.070	<0.033
2-Methylnaphthalene	<0.033	0.047	<0.033
Naphthalene	<0.033	0.039	<0.033
Phenanthrene	<0.033	0.160	<0.033
Pyrene	<0.033	0.180	0.064
ORGANOCHLORINE PESTICIDES[c] (µg/g)			
ppDDD	<0.006	<0.006	0.120[a]
Dieldrin	0.004[d]	<0.130	<2.100[a]
POLYCHLORINATED BIPHENYLS (µg/g)			
PCB-1260	<0.080	3.200[a]	0.220[a]
CHLORINATED HERBICIDES			
No detections above method detection limit			
TOTAL PETROLEUM HYDROCARBONS (µg/g)			
TPH-diesel fraction	10.000	500.000[a]	1400.000[a]

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
j = estimated value - above upper quantitation limit

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 1 of 8)

Sample ID	GGSB04	GGSB04	GGSB05	GGSB06	GGSB06	GGSB07
Sample Depth (ft bgs)	0.5	2.0	5.0	0.5	4.0	0.0
Sample Date	08/07/92	08/07/92	08/06/92	08/06/92	08/06/92	08/07/92
INORGANICS (μg/g)						
Aluminum	20000.000[a]	21000.000[a]	18000.000[a]	11000.000[a]	8300.000[a]	15000.000[a]
Antimony	<41.300	<41.300	<41.300	<41.300	<41.300	<41.300
Arsenic	4.690	4.090	3.410	8.140	3.460	3.540
Barium	116.000	106.000	111.000	231.000	116.000	136.000
Beryllium	1.250	1.070	1.170	1.270	0.899	0.986
Cadmium	<0.515	1.850	0.869	<0.515	0.857	<0.515
Calcium	3290.000	5570.000	3360.000	1030.000	8500.000[a]	2850.000
Chromium	205.000	556.000	262.000	20.100	105.000	81.200
Cobalt	53.100	103.000	68.200	44.500	29.400	33.400
Copper	41.100	40.500	21.300	121.000	34.900	19.900
Cyanide	<0.920	<0.920	11.000[a]	<0.920	<0.920	<0.920
Iron	35000.000[a]	54000.000[a]	37000.000[a]	33000.000[a]	21000.000[a]	25000.000[a]
Lead	4.800	6.290	3.680	14.000[a]	300.000[a]	11.300
Magnesium	6600.000[a]	12000.000[a]	8700.000[a]	2540.000	14000.000[a]	3170.000
Manganese	601.000	811.000	762.000	1490.000	504.000	484.000
Mercury	0.057	0.069	<0.027	0.063	0.151	0.048
Nickel	212.000	1020.000	325.000	39.200	131.000	64.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 2 of 8)

Sample ID	GGSB04	GGSB04	GGSB05	GGSB06	GGSB06	GGSB07
Sample Depth (ft bgs)	0.5	2.0	5.0	0.5	4.0	0.0
Sample Date	08/07/92	08/07/92	08/06/92	08/06/92	08/06/92	08/07/92
INORGANICS (continued) (μg/g)						
Potassium	751.000	862.000	838.000	2250.000	785.000	905.000
Selenium	<0.250	<0.250	<0.250	<0.250	<0.250	0.381
Silver	<0.521	<0.521	<0.521	<0.521	<0.521	<0.521
Sodium	322.000	495.000	304.000	260.000	181.000	336.000
Thallium	120.000[k]	193.000[k]	136.000[k]	116.000[k]	72.200[k]	91.100[k]
Vanadium	81.400	84.400	83.300	40.800	43.400	68.300
Zinc	59.100	67.200	51.700	97.600	301.000	45.800
VOLATILE ORGANICS (μg/g)						
Methylene chloride	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	<0.033	<0.033	<0.033	<0.033	0.200	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033	0.092	<0.033
Benzo(a)anthracene	<0.033	<0.033	<0.033	<0.033	0.250	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 3 of 8)

Sample ID	GGSB04	GGSB04	GGSB05	GGSB06	GGSB06	GGSB07
Sample Depth (ft bgs)	0.5	2.0	5.0	0.5	4.0	0.0
Sample Date	08/07/92	08/07/92	08/06/92	08/06/92	08/06/92	08/07/92
SEMIVOLATILE ORGANICS (continued) (μg/g)						
Benzo(b)fluoranthene	<0.033	<0.033	<0.033	<0.033	0.380	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033	0.380	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	<0.033	0.380	<0.033
Benzo(g,h,i)perylene	<0.250	<0.250	<0.250	<0.250	0.440	<0.250
Bis(2-ethylhexyl)phthalate	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390
Butylbenzylphthalate	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Chrysene	<0.220	<0.220	<0.220	<0.220	0.590	<0.220
Dibenz(a,h)anthracene	<0.033	<0.033	<0.033	<0.033	0.120	<0.033
Fluoranthene	<0.085	<0.085	<0.085	<0.085	1.100	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033	0.044	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033	0.330	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	0.063	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033	0.150	<0.033
Phenanthrene	<0.033	<0.033	<0.033	<0.033	1.100	<0.033
Pyrene	<0.033	<0.033	<0.033	<0.033	0.900[a]	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 4 of 8)

Sample ID	GGSB04	GGSB04	GGSB05	GGSB06	GGSB06	GGSB07
Sample Depth (ft bgs)	0.5	2.0	5.0	0.5	4.0	0.0
Sample Date	08/07/92	08/07/92	08/06/92	08/06/92	08/06/92	08/07/92
ORGANOCHLORINE PESTICIDES[c] (μg/g)						
Aldrin	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
ppDDD	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
ppDDE	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
POLYCHLORINATED BIPHENYLS (μg/g)						
PCB-1254	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND
CHLORINATED HERBICIDES						
No detection above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (μg/g)						
TPH-diesel fraction	8.000	8.000	<1.000	15.000	2.000	7.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 5 of 8)

Sample ID	GGSB07	GGSB08	GGSB08	GGSB09	GGSB09	GGSS01
Sample Depth (ft bgs)	3.0	1.0	3.0	0.0	3.0	0.0
Sample Date	08/07/92	08/06/92	08/06/92	08/07/92	08/07/92	08/07/92
INORGANICS (μg/g)						
Aluminum	12000.000[a]	11000.000[a]	NA	9100.000[a]	31000.000[a]	16000.000[a]
Antimony	<41.300	<41.300	NA	<41.300	<41.300	<41.300
Arsenic	1.400	2.690	NA	3.650	6.090	3.630
Barium	84.800	173.000	NA	505.000	139.000	66.100
Beryllium	0.826	0.882	NA	0.948	1.700	1.110
Cadmium	<0.515	0.872	NA	0.942	<0.515	<0.515
Calcium	2010.000	4690.000	NA	4670.000	1980.000	2080.000
Chromium	157.000	156.000	NA	258.000	141.000	128.000
Cobalt	26.500	46.900	NA	50.900	49.500	42.300
Copper	11.800[f]	57.000	NA	44.600	31.700	24.400
Cyanide	<0.920	<0.920	NA	<0.920	<0.920	<0.920
Iron	18000.000[a]	31000.000	NA	28000.000[a]	39000.000[a]	26000.000[a]
Lead	3.950	600.000[a]	NA	92.000	8.130	4.510
Magnesium	5330.000	15000.000[a]	NA	12000.000	5440.000	3750.000
Manganese	473.000	888.000	NA	2060.000	516.000	696.000
Mercury	0.063	0.048	NA	0.047	0.076	0.037
Nickel	99.400	200.000	NA	488.000	136.000	120.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 6 of 8)

Sample ID	GGSB07	GGSB08	GGSB08	GGSB09	GGSB09	GGSS01
Sample Depth (ft bgs)	3.0	1.0	3.0	0.0	3.0	0.0
Sample Date	08/07/92	08/06/92	08/06/92	08/07/92	08/07/92	08/07/92
INORGANICS (continued) (μg/g)						
Potassium	334.000	1280.000	NA	769.000	803.000	486.000
Selenium	<0.250	<0.250	NA	<0.250	<0.250	0.712
Silver	<0.521	<0.521	NA	<0.521	<0.521	<0.521
Sodium	699.000 k	195.000 k	NA	183.000 k	938.000 k	254.000 k
Thallium	70.700 k	101.000 k	NA	98.900 k	135.000 k	100.000 k
Vanadium	33.700	60.300	NA	54.400	92.800	69.900
Zinc	33.800	149.000	NA	223.000	59.400	37.100
VOLATILE ORGANICS (μg/g)						
Methylene chloride	0.054	<0.040	<0.040	<0.040	<0.040	<0.040
SEMIVOLATILE ORGANICS (μg/g)						
Acenaphthylene	<0.033	0.058	<0.033	<0.033	<0.033	<0.033
Anthracene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	0.075	<0.033	<0.033	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 7 of 8)

Sample ID	GGSB07	GGSB08	GGSB08	GGSB09	GGSB09	GGSS01
Sample Depth (ft bgs)	3.0	1.0	3.0	0.0	3.0	0.0
Sample Date	08/07/92	08/06/92	08/06/92	08/07/92	08/07/92	08/07/92
SEMIVOLATILE ORGANICS (continued) (μg/g)						
Benzo(b)fluoranthene	<0.033	0.110	<0.033	<0.033	<0.033	<0.033
Benzo(k)fluoranthene	<0.033	0.160	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	0.120	<0.033	<0.033	<0.033	<0.033
Benzo(g,h,i)perylene	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Bis(2-ethylhexyl)phthalate	<0.390	0.970	<0.390	<0.390	<0.390	<0.390
Butylbenzylphthalate	<0.033	0.041	<0.033	<0.033	<0.033	<0.033
Chrysene	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220
Dibenzo(a,h)anthracene	<0.033	0.074	<0.033	<0.033	<0.033	<0.033
Fluoranthene	<0.085	0.340	<0.085	<0.085	<0.085	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	0.120	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Naphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Phenanthrene	<0.033	0.330	<0.033	<0.033	<0.033	<0.033
Pyrene	<0.033	0.470	<0.033	<0.033	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 11.4-7 Summary of Soil Boring Sample Detections, Bone Yard, GGBHTD Study Area, Supplemental RI (page 8 of 8)

Sample ID	GGSB07	GGSB08	GGSB08	GGSB09	GGSB09	GGSS01
Sample Depth (ft bgs)	3.0	1.0	3.0	0.0	3.0	0.0
Sample Date	08/07/92	08/06/92	08/06/92	08/07/92	08/07/92	08/07/92
ORGANOCHLORINE PESTICIDES[c] (µg/g)						
Aldrin	<0.003	<0.003	<0.003	0.009	<0.003	<0.003
ppDDD	<0.006	<0.006	<0.006	0.010	<0.006	<0.006
ppDDE	<0.006	<0.006	<0.006	0.012	<0.006	<0.006
POLYCHLORINATED BIPHENYLS (µg/g)						
PCB-1254	ND	ND	NA	ND	ND	ND
PCB-1260	ND	ND	NA	ND	ND	ND
CHLORINATED HERBICIDES						
No detections above method detection limit						
TOTAL PETROLEUM HYDROCARBONS (µg/g)						
TPH-diesel fraction	2.000	2.000	<1.000	32.000	3.000	79.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results
NA = not analyzed
ND = not detected

Table 12.4-1 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 1 of 6)

Sample ID	BBSB01	BBSB01	BBSB02	BBSB02	BBSB03	BBSB03	BBSB04	BBSB04	BBSB05
Sample Depth (ft bgs)	0.0	2.0	0.0	2.5	0.0	1.0	0.0	1.5	0.0
Sample Date	08/12/92	08/12/92	08/10/92	08/10/92	08/11/92	08/11/92	08/12/92	08/12/92	08/12/92
INORGANICS (µg/g)									
Aluminum	10000.000[a]	13000.000[a]	31000.000[a]	22000.000[a]	14000.000[a]	13000.000[a]	14000.000[a]	11000.000[a]	40000.000[a]
Antimony	90.000	116.000	85.400	123.000	<41.300	<41.300	<41.300	<41.300	100.000
Arsenic	3.570	3.720	3.370	2.070	4.630	2.830	4.260	3.200	11.300
Barium	97.400	68.900	557.000	107.000	130.000	147.000	148.000	187.000	203.000
Beryllium	0.908	1.020	1.200	0.675	1.220	0.901	1.150	0.958	1.510
Cadmium	2.700	2.490	2.430	3.300	1.060	1.020	0.714	0.800	1.130
Calcium	8100.000[a]	7800.000[a]	13000.000[a]	13000.000[a]	5480.000	3010.000	5900.000[a]	16000.000[a]	15000.000[a]
Chromium	661.000	1050.000	474.000	866.000	84.200	56.600	73.200	56.900	363.000
Cobalt	118.000	134.000	90.000	128.000	35.500	39.000	42.000	35.900	81.700
Copper	45.500	52.900	72.700	50.000	28.000	63.300	71.400	57.000	53.000
Iron	52000.000[a]	53000.000[a]	54000.000[a]	60000.000[a]	25000.000[a]	31000.000[a]	26000.000[a]	22000.000[a]	50000.000[a]
Lead	91.000[a]	140.000[a]	20.000[a]	22.000[a]	81.000[a]	31.000[a]	77.000[a]	29.000[a]	9.040[a]
Magnesium	63000.000[a]	92000.000[a]	61000.000[a]	100000.000[a]	4180.000	5260.000	4420.000	4130.000	78000.000
Manganese	737.000	864.000	1180.000	822.000	396.000	659.000	745.000	815.000	802.000
Mercury	0.072	0.067	0.081	0.077	0.100[a]	0.052	0.082	0.103	0.043
Nickel	1210.000	1540.000	1110.000	1840.000	72.400	70.500	68.100	53.600	559.000
Potassium	1270.000	1120.000	1370.000	398.000	928.000	1240.000	1150.000	1160.000	1250.000
Selenium	1.290	1.500	1.870	1.390	0.574	0.764	0.446	<0.250	2.370
Silver	1.840	2.080	0.947	<0.521	<0.521	<0.521	1.230	1.350	2.630
Sodium	659.000[k]	726.000[k]	1960.000[k]	1370.000[k]	248.000[k]	194.000[k]	360.000[k]	300.000[k]	588.000[k]
Thallium	191.000[k]	208.000[k]	217.000[k]	242.000[k]	93.200[k]	119.000[k]	101.000[k]	88.100[k]	201.000[k]
Vanadium	64.000	69.300	77.100	68.300	76.000	62.400	70.400	58.800	99.400
Zinc	243.000	167.000	101.000	123.000	146.000	56.800	124.000	85.100	105.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-1 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 2 of 6)

Sample ID	BBSB01	BBSB01	BBSB02	BBSB02	BBSB03	BBSB03	BBSB04	BBSB04	BBSB05
Sample Depth (ft bgs)	0.0	2.0	0.0	2.5	0.0	1.0	0.0	1.5	0.0
Sample Date	08/12/92	08/12/92	08/10/92	08/10/92	08/11/92	08/11/92	08/12/92	08/12/92	08/12/92
VOLATILE ORGANICS (µg/g)									
Methylene chloride	0.200	0.230	<0.040	<0.040	<0.040	<0.040	0.110	0.083	<0.040
Trichlorofluoromethane	0.004	<0.002	0.020	0.004	<0.002	<0.002	<0.002	<0.002	<0.002
SEMIVOLATILE ORGANICS (µg/g)									
Acenaphthylene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)anthracene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(a)pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Benzo(g,h,i)perylene	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Bis(2-ethylhexyl)phthalate	0.620	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	1.400	<0.920	<0.920	<0.920	1.600
Fluoranthene	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085
Fluorene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.170
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.039	<0.033	<0.033
Phenanthrene	<0.033	<0.033	<0.033	<0.033	0.056	<0.033	<0.033	<0.033	0.082
Pyrene	0.039	<0.033	<0.033	<0.033	0.120	0.035	0.075	<0.033	<0.033
ORGANOCHLORINE PESTICIDES[c] (µg/g)									
delta-BHC	<0.003	0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
gamma-BHC (Lindane)	<0.003	<0.003	0.005	0.005	0.003	<0.003[d]	<0.003[d]	<0.003	<0.003
ppDDD	<0.006	<0.006[d]	<0.006	<0.006	0.015	0.004[d]	0.005[d]	<0.006	<0.006
ppDDE	0.006	0.005[d]	<0.006	<0.006	0.028	0.004[d]	0.018	0.025	<0.006
ppDDT	0.170	0.070	<0.006	<0.006	0.088	0.014	0.052	0.076	<0.006
Dieldrin	<0.006	<0.006	<0.006	<0.006	0.059	0.007	0.022	0.067	<0.006
Endrin	<0.006	<0.006	<0.006	<0.006	0.005[d]	<0.006	<0.006	0.004[d]	<0.006

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[d] = estimated value - below certified reporting limit or method detection limit
[f] = data affected by blank contamination
[k] = data not verified by other lab results

Table 12.4-1 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 3 of 6)

Sample ID	BBSB01	BBSB01	BBSB02	BBSB02	BBSB03	BBSB03	BBSB04	BBSB04	BBSB05
Sample Depth (ft bgs)	0.0	2.0	0.0	2.5	0.0	1.0	0.0	1.5	0.0
Sample Date	08/12/92	08/12/92	08/10/92	08/10/92	08/11/92	08/11/92	08/12/92	08/12/92	08/12/92
ORGANOCHLORINE PESTICIDES[c] (continued) (µg/g)									
Endrin aldehyde	<0.006	<0.006	0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Heptachlor epoxide	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)									
PCB-1254	<0.082	<0.082	<0.082	<0.082	<0.082	<0.082	<0.082	0.394	<0.082
CHLORINATED HERBICIDES									
No detections above method detection limit									
TOTAL PETROLEUM HYDROCARBONS (µg/g)									
TPH-diesel fraction	28.000	16.000	23.000	11.000	26.000	16.000	20.000[a]	13.000	9.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-1 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 4 of 6)

Sample ID	BBSB21	BBSB21	BBSB22	BBSB22
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0
Sample Date	08/30/92	08/30/92	08/30/92	08/30/92
INORGANICS (μg/g)				
Aluminum	7200.000[a]	13000.000[a]	6900.000[a]	6900.000[a]
Antimony	<41.300	<41.300	<41.300	<41.300
Arsenic	4.080	3.510	2.840	2.730
Barium	41.900	94.900	27.800	19.100
Beryllium	<0.500	<0.500	<0.500	<0.500
Cadmium	<0.515	<0.515	<0.515	<0.515
Calcium	4180.000	4140.000	4450.000	3740.000
Chromium	187.000	86.800	102.000	111.000
Cobalt	15.100	11.000	9.730	9.880
Copper	20.700	20.900	9.890	8.640
Iron	19000.000[a]	26000.000[a]	22000.000[a]	24000.000[a]
Lead	40.000[a]	16.000[a]	13.000[a]	2.080
Magnesium	7800.000[a]	3210.000	2250.000[f]	2600.000[f]
Manganese	294.000[f]	323.000	248.000[f]	173.000[f]
Mercury	<0.027	0.031	<0.027	<0.027
Nickel	188.000	56.300	39.000	51.200
Potassium	792.000	1050.000	681.000	528.000
Selenium	<0.250	<0.250	<0.250	<0.250
Silver	<0.521	<0.521	<0.521	<0.521
Sodium	539.000	847.000	213.000	613.000
Thallium	<14.700	<14.700	<14.700	<14.700
Vanadium	42.800	58.400	64.400	62.800[f]
Zinc	39.100	44.400	33.100	20.800[f]

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-1 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 5 of 6)

Sample ID	BBSB21	BBSB21	BBSB22	BBSB22
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0
Sample Date	08/30/92	08/30/92	08/30/92	08/30/92
VOLATILE ORGANICS (μg/g)				
Methylene chloride	<0.040	<0.040	<0.040	<0.040
Trichlorofluoromethane	<0.002	<0.002	<0.002	<0.002
SEMIVOLATILE ORGANICS (μg/g)				
Acenaphthylene	0.300	<0.033	<0.033	<0.033
Benzo(a)anthracene	0.600	<0.033	<0.033	<0.033
Benzo(b)fluoranthene	2.000	0.150	<0.033	<0.033
Benzo(a)pyrene	2.000	<0.033	<0.033	<0.033
Benzo(g,h,i)perylene	3.000	<0.250	<0.250	<0.250
Bis(2-ethylhexyl)phthalate	<2.000	<0.390	<0.390	<0.390
Di-n-butylphthalate	<5.000[a]	3.200	<0.920	<0.920
Fluoranthene	2.000[a]	<0.085	<0.085	<0.085
Fluorene	<0.200[a]	<0.033	<0.033	<0.033
Indeno(1,2,3-cd)pyrene	2.000[a]	<0.033	<0.033	<0.033
2-Methylnaphthalene	<0.200[a]	<0.033	<0.033	<0.033
Phenanthrene	1.000[a]	0.060	0.051	<0.033
Pyrene	2.000[a]	0.088	0.053	<0.033
ORGANOCHLORINE PESTICIDES[c] (μg/g)				
delta-BHC	0.007	<0.003	<0.003	<0.003
gamma-BHC (Lindane)	0.004	0.008	<0.003	<0.003
ppDDD	<0.006	<0.006	<0.006	<0.006
ppDDE	<0.006	<0.006	<0.006	<0.006

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-1 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 6 of 6)

Sample ID	BBSB21	BBSB21	BBSB22	BBSB22
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0
Sample Date	08/30/92	08/30/92	08/30/92	08/30/92
ORGANOCHLORINE PESTICIDES[c] (continued) (µg/g)				
ppDDT	<0.006	<0.006	<0.006	<0.006
Dieldrin	<0.006	<0.006	<0.006	<0.006
Endrin	<0.006	<0.006	<0.006	<0.006
Endrin aldehyde	<0.006	<0.006	<0.006	<0.006
Heptachlor expoxide	<0.003	0.023	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)				
PCB-1254	<0.082	<0.082	<0.082	<0.082
CHLORINATED HERBICIDES				
No detections above method detection limit				
TOTAL PETROLEUM HYDROCARBONS[c] (µg/g)				
TPH-diesel fraction	48.000	24.000	5.000	10.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
d = estimated value - below certified reporting limit or method detection limit
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-2 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Follow-on RI (page 1 of 3)

Sample ID	BBSB23	BBSB23	BBSB24	BBSB24	BBSB24	BBSB25	BBSB25
Sample Depth (ft bgs)	0.0	1.7	0.0	1.7	4.0	0.0	1.7
Sample Date	12/08/94	12/08/94	12/08/94	12/08/94	01/04/95	12/08/94	12/08/94
INORGANICS (µg/g)							
Lead-XRF	81.6	91.7	620	3370	536	79.5	66.1
Lead	NA	NA	NA	NA	NA	NA	NA
Zinc-XRF	168	183	1360	13000	1550	130	86.2
Zinc	NA	NA	NA	13100	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 12.4-2 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Follow-on RI (page 2 of 3)

Sample ID	BBSB26	BBSB26	BBSB26	BBSB31	BBSB31	BBSB32	BBSB32
Sample Depth (ft bgs)	0.0	1.7	4.0	0.0	1.0	0.0	3.5
Sample Date	12/08/94	12/08/94	01/04/95	01/04/95	01/04/95	01/04/95	01/04/95
INORGANICS (µg/g)							
Lead-XRF	2050	2180	896	160	1090	62	<25
Lead	NA	NA	NA	NA	NA	NA	NA
Zinc-XRF	3590	2050	1450	160	923	<36	110
Zinc	NA	NA	NA	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 12.4-2 Summary of Soil Boring Sample Detections, Disturbed Area 1, Baker Beach Study Area, Follow-on RI (page 3 of 3)

Sample ID	BBSB33	BBSB33	BBSB34	BBSB34	BBSB35	BBSB35
Sample Depth (ft bgs)	0.0	1.5	0.0	5.0	0.0	8.0
Sample Date	01/04/95	01/04/95	01/04/95	01/04/95	01/04/95	01/04/95
INORGANICS (µg/g)						
Lead-XRF	82.8	<25	726	335	159	69
Lead	NA	8.33	NA	NA	NA	NA
Zinc-XRF	<36	<36	1510	590	290	<36
Zinc	NA	52.4	NA	NA	NA	NA

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 12.4-3 Summary of Surface-Water Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI

Sample ID	BBSW01
Sample Date	09/04/92
INORGANICS (μg/L)	
Barium	101.000
Calcium	58400.000
Magnesium	94500.000
Manganese	187.000
Potassium	6190.000
Sodium	134000.000
Vanadium	11.800
Zinc	29.300
MISCELLANEOUS PARAMETERS (μg/L)	
Chloride	200000.000[a]
Nitrate	199.000
Sulfate	78000.000[a]
Total Alk as CaCO3	483000.000
TDS	973000.000

VOLATILE ORGANICS
No detections above certified reporting limit or method detection limit

SEMIVOLATILE ORGANICS
No detections above certified reporting limit

ORGANOCHLORINE PESTICIDES
No detections above method detection limit

POLYCHLORINATED BIPHENYLS
No detections above certified reporting limit

CHLORINATED HERBICIDES
No detections above method detection limit

TOTAL PETROLEUM HYDROCARBONS
No detections above method detection limit

μg/L = micrograms per liter
[a] = diluted sample

Table 12.4-4 Summary of Sediment Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 1 of 2)

Sample ID	BBSD01
Sample Depth (ft bgs)	0.0
Sample Date	09/04/92
INORGANICS (μg/g)	
Aluminum	10000.000[a]
Arsenic	13.000[a]
Barium	1290.000
Cadmium	6.640
Calcium	14000.000[a]
Chromium	121.000
Cobalt	23.500
Copper	387.000
Iron	93000.000[a]
Lead	3700.000[a]
Magnesium	8700.000[a]
Manganese	1230.000
Mercury	0.291
Nickel	171.000
Potassium	1170.000
Silver	6.090
Sodium	649.000
Vanadium	48.600
Zinc	3300.000[a]
VOLATILE ORGANICS	
No detections above certified reporting limit or method detection limit	
SEMIVOLATILE ORGANICS	
No detections above certified reporting limit	
ORGANOCHLORINE PESTICIDES[c] (μg/g)	
ppDDE	0.006
POLYCHLORINATED BIPHENYLS (μg/g)	
PCB-1260	0.126

μg/g = micrograms per gram
[a] = diluted sample
[c] = all detections are confirmed

Table 12.4-4 Summary of Sediment Sample Detections, Disturbed Area 1, Baker Beach Study Area, Supplemental RI (page 2 of 2)

Sample ID	BBSD01
Sample Depth (ft bgs)	0.0
Sample Date	09/04/92
CHLORINATED HERBICIDES	
No detections above method detection limit	
TOTAL PETROLEUM HYDROCARBONS (µg/g)	
TPH-diesel fraction	6.000

µg/g = micrograms per gram
a = diluted sample
c = all detections are confirmed

Table 12.4-5 Summary of Soil Boring Sample Detections, Disturbed Area 2, Baker Beach Study Area, Supplemental RI (page 1 of 3)

Sample ID	BBSB06	BBSB06	BBSB07	BBSB08	BBSB08
Sample Depth (ft bgs)	0.0	1.5	0.0	0.0	2.0
Sample Date	08/13/92	08/13/92	08/13/92	08/12/92	08/12/92
INORGANICS (μg/g)					
Aluminum	13000.000[a]	15000.000[a]	13000.000[a]	12000.000[a]	10000.000[a]
Antimony	<41.300	<41.300	71.900	<41.300	<41.300
Arsenic	5.210	4.870	3.690	3.670	1.900
Barium	205.000	218.000	91.700	138.000	224.000
Beryllium	1.250	1.310	0.959	1.070	1.110
Cadmium	0.762	1.300	2.200	0.900	0.978
Calcium	14000.000[a]	20000.000[a]	2600.000	5190.000	7300.000[a]
Chromium	93.800	106.000	707.000	69.700	44.900
Cobalt	44.700	46.200	110.000	37.400	39.500
Copper	44.800	55.200	41.100	68.400	118.000
Iron	GT 25000.000[a]	34000.000[a]	43000.000[a]	26000.000[a]	29000.000[a]
Lead	31.000[a]	20.000[a]	29.000[a]	210.000[a]	110.000[a]
Magnesium	9900.000[a]	9600.000[a]	GT 50000.000[a]	4100.000	2770.000
Manganese	732.000	685.000	811.000	609.000	1200.000
Mercury	0.046	0.032	0.040	0.088	0.042
Nickel	127.000	120.000	927.000	68.900	51.100
Potassium	2580.000	2560.000	1620.000	1910.000	1590.000
Selenium	0.477	<0.250	1.290	0.541	<0.250
Silver	0.670	<0.521	0.654	1.470	1.650
Sodium	181.000[k]	281.000[k]	266.000[k]	193.000[k]	179.000[k]
Thallium	97.500[k]	115.000[k]	165.000[k]	100.000[k]	108.000[k]
Vanadium	55.700	61.900	61.400	62.200	53.700
Zinc	307.000	292.000	101.000	129.000	97.200

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
k = data not verified by other lab results

Table 12.4-5 Summary of Soil Boring Sample Detections, Disturbed Area 2, Baker Beach Study Area, Supplemental RI (page 2 of 3)

Sample ID	BBSB06	BBSB06	BBSB07	BBSB08	BBSB08
Sample Depth (ft bgs)	0.0	1.5	0.0	0.0	2.0
Sample Date	08/13/92	08/13/92	08/13/92	08/12/92	08/12/92
VOLATILE ORGANICS (μg/g)					
Benzene	<0.002	<0.002	<0.002	0.002	<0.002
Trichlorofluoromethane	<0.002	<0.002	<0.002	0.005	<0.002
Xylenes (total)	<0.002	<0.002	<0.002	<0.002	0.004
SEMIVOLATILE ORGANICS (μg/g)					
Acenaphthylene	0.100	<0.033	<0.033	<0.033	<0.033
Anthracene	0.081	<0.033	<0.033	0.061	<0.033
Benzo(a)anthracene	0.520	<0.033	<0.033	0.220	0.084
Benzo(b)fluoranthene	0.470	<0.033	<0.033	0.140	0.130
Benzo(k)fluoranthene	0.380	<0.033	<0.033	0.180	0.140
Benzo(a)pyrene	0.540	<0.033	<0.033	0.110	0.110
Chrysene	0.470	<0.220	<0.220	<0.220	<0.220
Fluoranthene	0.560	<0.085	<0.085	0.400	0.260
Fluorene	<0.033	<0.033	<0.033	0.051	<0.033
Indeno(1,2,3-cd)pyrene	<0.033	<0.033	<0.033	0.090	0.045
Naphthalene	0.051	<0.033	<0.033	0.046	<0.033
Phenanthrene	0.150	<0.033	<0.033	0.440	<0.033
Pyrene	0.910	<0.033	<0.033	<0.033	0.220
ORGANOCHLORINE PESTICIDES[c] (μg/g)					
alpha-BHC	0.004	<0.003	<0.003	<0.030[a]	<0.003
ppDDE	<0.006	<0.006	<0.006	<0.060[a]	0.012
ppDDT	<0.006	<0.006	<0.006	<0.060[a]	0.022
Endrin	0.006	<0.006	<0.006	<0.060[a]	<0.006

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
k = data not verified by other lab results

Table 12.4-5 Summary of Soil Boring Sample Detections, Disturbed Area 2, Baker Beach Study Area, Supplemental RI (page 3 of 3)

Sample ID	BBSB06	BBSB06	BBSB07	BBSB08	BBSB08
Sample Depth (ft bgs)	0.0	1.5	0.0	0.0	2.0
Sample Date	08/13/92	08/13/92	08/13/92	08/12/92	08/12/92
POLYCHLORINATED BIPHENYLS					
No detections above certified reporting limit					
CHLORINATED HERBICIDES					
No detections above method detection limit					
TOTAL PETROLEUM HYDROCARBONS (µg/g)					
TPH-diesel fraction	58.000	13.000	11.000	19.000	14.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
GT = greater than upper certified reporting limit
a = diluted sample
c = all detections are confirmed
k = data not verified by other lab results

Table 12.4-6 Summary of Soil Boring Sample Detections, Disturbed Area 3, Baker Beach Study Area, Supplemental RI (page 1 of 3)

Sample ID	BBSB11	BBSB11	BBSB12	BBSB12	BBSB13	BBSB13	BBSB14	BBSB14	BBSB15	BBSB15
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Sample Date	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	08/06/92	08/07/92	08/07/92	08/11/92	08/11/92
INORGANICS (µg/g)										
Aluminum	4100.000	4110.000	11000.000[a]	11000.000[a]	7700.000[a]	7500.000[a]	12000.000[a]	11000.000[a]	5200.000	5700.000[a]
Antimony	<41.300	<41.300	156.000	<41.300	<41.300	<41.300	51.000	<41.300	<41.300	<41.300
Arsenic	2.780[f]	2.810[f]	1.140	5.160	4.740	2.470	4.610	3.920	3.310	3.170
Barium	13.300[f]	16.200[f]	47.500	145.000	74.900	84.300	86.400	110.000	50.800	63.600
Beryllium	0.547	0.558	<0.500	0.958	0.914	1.020	0.800	0.883	0.812	0.983
Cadmium	<0.515	<0.515	5.440	1.230	1.100	<0.515	0.911	0.945	<0.515	<0.515
Calcium	3050.000	2740.000	14000.000[a]	4640.000	6900.000[a]	4340.000	8900.000[a]	4600.000	4530.000	4350.000
Chromium	39.200[f]	38.400[f]	1590.000	67.100	74.800	89.400	277.000	69.700	51.200	53.900
Cobalt	16.400[f]	16.200[f]	279.000	55.200	25.500	28.000	49.100	32.500	20.500	20.000
Copper	5.920[f]	7.210[f]	46.800	39.900	30.300	21.600	31.100	37.700	15.900	11.500
Iron	9700.000[a]	9500.000[a]	90000.000[a]	51000.000[a]	18000.000[a]	21000.000[a]	27000.000[a]	25000.000[a]	15000.000[a]	14000.000[a]
Lead	6.000	9.950	77.000[a]	1.090	240.000[a]	180.000[a]	350.000[a]	1000.000[a]	20.000[a]	12.000[a]
Magnesium	2110.000[f]	3670.000[f]	130000.000[a]	3390.000	5230.000	8800.000[a]	37000.000[a]	4140.000	2770.000	3060.000[f]
Manganese	130.000[f]	128.000[f]	1240.000	595.000	351.000	292.000[f]	510.000	525.000	298.000	205.000[f]
Mercury	<0.027	<0.027	0.048	0.301	0.176	0.036	0.049	0.080	0.030	0.027
Nickel	24.600	29.200	4300.000[a]	68.300	69.000	92.700	427.000	61.700	40.000	43.500
Potassium	452.000	405.000	<119.000	1060.000	648.000	484.000	1110.000	857.000	567.000	455.000
Selenium	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	0.362	<0.250
Silver	0.732	0.682	<0.521	<0.521	<0.521	<0.521	<0.521	<0.521	<0.521	<0.521
Sodium	194.000[k]	207.000[k]	1390.000[k]	224.000[k]	148.000[k]	154.000[k]	232.000[k]	155.000[k]	185.000[k]	180.000[k]
Thallium	33.800[k]	33.700[k]	355.000[k]	197.000[k]	68.700[k]	86.500[k]	118.000[k]	89.300[k]	51.700[k]	63.100[k]
Vanadium	32.500[f]	30.100	65.200	59.500	47.100	57.300	54.500	59.900	50.000	46.400[f]
Zinc	24.600[f]	45.400	64.000	376.000	124.000	57.700	134.000	2900.000[a]	29.800	27.700[f]

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
[a] = diluted sample
[c] = all detections are confirmed
[f] = data affected by blank contamination
[k] = data not verified by other lab results

Table 12.4-6 Summary of Soil Boring Sample Detections, Disturbed Area 3, Baker Beach Study Area, Supplemental RI (page 2 of 3)

Sample ID	BBSB11	BBSB11	BBSB12	BBSB12	BBSB13	BBSB13	BBSB14	BBSB14	BBSB15	BBSB15
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Sample Date	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	08/06/92	08/07/92	08/07/92	08/11/92	08/11/92
VOLATILE ORGANICS										
No detections above certified reporting limit or method detection limit										
SEMIVOLATILE ORGANICS (µg/g)										
Benzo(a)anthracene	<0.033	<0.033	<0.033	<0.033	<0.200[a]	<0.033	<0.033	<0.033	0.060	<0.033
Benzo(k)fluoranthene	<0.033	<0.033	<0.033	<0.033	<0.200[a]	0.044	<0.033	<0.033	<0.033	<0.033
Bis(2-ethylhexyl)phthalate	<0.390	<0.390	<0.390	<0.390	<2.000[a]	0.580	1.700	3.300	<0.390	<0.390
Fluoranthene	<0.085	<0.085	<0.085	<0.085	<0.400[a]	0.110	<0.085	<0.085	0.200	<0.085
Phenanthrene	<0.033	<0.033	<0.033	0.046	0.300[a]	0.097	<0.033	0.078	0.210	<0.033
Pyrene	<0.033	<0.033	<0.033	0.059	0.600[a]	0.110	0.060	0.084	0.350	<0.033
ORGANOCHLORINE PESTICIDES[c] (µg/g)										
ppDDD	<0.006	<0.006	0.007[f]	<0.006	0.021[f]	0.007[f]	<0.006	<0.006	<0.006	<0.006
ppDDE	<0.006	<0.006	0.020[f]	<0.006	0.013[f]	0.013[f]	<0.006	<0.006	<0.006	<0.006
ppDDT	<0.006	<0.006	0.035[f]	0.014	0.047	0.018[f]	0.008	0.006	<0.006	0.006
Dieldrin	<0.006	<0.006	0.008	0.006	0.016	0.009	<0.006	<0.006	<0.006	<0.006
Endrin	<0.006	<0.006	<0.006	0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Heptachlor expoxide	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	<0.003	<0.003	<0.003	<0.003
POLYCHLORINATED BIPHENYLS (µg/g)										
PCB-1254	<0.082	<0.082	<0.082	<0.082	<0.082	<0.082	<0.082	0.197	<0.082	<0.082

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-6 Summary of Soil Boring Sample Detections, Disturbed Area 3, Baker Beach Study Area, Supplemental RI (page 3 of 3)

Sample ID	BBSB11	BBSB11	BBSB12	BBSB12	BBSB13	BBSB13	BBSB14	BBSB14	BBSB15	BBSB15
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Sample Date	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	08/06/92	08/07/92	08/07/92	08/11/92	08/11/92
CHLORINATED HERBICIDES										
No detections above method detection limit										
TOTAL PETROLEUM HYDROCARBONS (µg/g)										
TPH-diesel fraction	6.000	5.000	15.000	5.000	10.000[a]	15.000	50.000	21.000	30.000[a]	7.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-7 Summary of Soil Boring Sample Detections, Disturbed Area 3, Baker Beach Study Area, Follow-on RI (page 1 of 2)

Sample ID	BBSB27	BBSB27	BBSB28	BBSB28	BBSB29	BBSB29	BBSB30
Sample Depth (ft bgs)	0.0	2.7	0.0	2.7	0.0	2.7	0.0
Sample Date	12/08/94	12/08/94	12/08/94	12/08/94	12/08/94	12/08/94	12/08/94
INORGANICS (µg/g)							
Lead-XRF	252	<25	204	182	164	140	<25
Zinc-XRF	99.6	<36	144	547	110	241	<36
Zinc	NA	92.1	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	5490

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

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Table 12.4-7 Summary of Soil Boring Sample Detections, Disturbed Area 3, Baker Beach Study Area, Follow-on RI (page 2 of 2)

Sample ID	BBSB30
Sample Depth (ft bgs)	2.7
Sample Date	12/08/94
INORGANICS (µg/g)	
Lead-XRF	<25
Zinc-XRF	<36
Zinc	NA
MISCELLANEOUS PARAMETERS (µg/g)	
Total Organic Carbon	5300

µg/g = microgram per gram

< = less than reporting limit
NA = not analyzed

Table 12.4-8 Summary of Soil Boring Sample Detections, Disturbed Area 4, Baker Beach Study Area, Supplemental RI (page 1 of 2)

Sample ID	BBSB16	BBSB16	BBSB17	BBSB17	BBSB18	BBSB18	BBSB19	BBSB19	BBSB20	BBSB20
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Sample Date	08/03/92	08/03/92	08/05/92	08/05/92	08/03/92	08/03/92	08/05/92	08/05/92	08/05/92	08/05/92
INORGANICS (µg/g)										
Aluminum	8700.000[a]	6700.000[a]	4340.000	3950.000	6200.000[a]	4750.000	4180.000	5070.000	4990.000	4900.000
Arsenic	2.860	3.280	3.130[f]	3.530[f]	2.620	2.540[f]	2.480[f]	2.960	3.090	2.550[f]
Barium	72.500	43.100	17.100[f]	14.800[f]	47.500	9.880[f]	19.900[f]	26.500	26.000	18.000[f]
Beryllium	0.643	<0.500	0.567	0.551	0.687	<0.500	<0.500	0.554	0.551	<0.500
Cadmium	0.779	<0.515	<0.515	<0.515	0.542	<0.515	<0.515	<0.515	<0.515	<0.515
Calcium	9900.000[a]	6400.000[a]	5010.000	3120.000	4810.000	3720.000	5100.000	3210.000	4140.000	3690.000
Chromium	42.400	28.800	42.100	37.000[f]	51.400	49.900[f]	33.200[f]	42.000[f]	36.700[f]	44.400[f]
Cobalt	29.600	21.400[f]	6.700[e,f]	16.300[f]	27.700[f]	16.900[f]	15.200[f]	18.200[f]	17.900[f]	19.500[f]
Copper	26.600	15.800[f]	4.750[f]	5.610[f]	15.400[f]	5.280	7.690[f]	7.570[f]	11.300[f]	7.290[f]
Iron	21000.000[a]	15000.000[a]	12000.000[a]	9800.000[a]	18000.000[a]	11000.000[a]	6000.000[a]	11000.000[a]	11000.000[a]	12000.000[a]
Lead	240.000	180.000	20.000[a]	2.940	54.000[a]	4.170	22.000[a]	4.860	160.000[a]	21.000[a]
Magnesium	5400.000[a]	4070.000[f]	2280.000[f]	1970.000[f]	3150.000[f]	2100.000[f]	2200.000[f]	2410.000[f]	2340.000[f]	2270.000[f]
Manganese	408.000	329.000[f]	158.000[f]	126.000[f]	306.000[f]	134.000[f]	164.000[f]	186.000[f]	180.000[f]	160.000[f]
Mercury	0.067	0.076	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Nickel	50.800	34.700	21.000	20.800	34.400	25.700	21.100	27.500	24.700	24.200
Potassium	766.000	494.000	532.000	325.000	602.000	321.000	439.000	392.000	507.000	437.000
Silver	1.160	0.813	0.582	0.778	1.040	<0.521	0.710	0.755	0.790	0.805
Sodium	216.000[k]	160.000[k]	170.000[k]	157.000[k]	138.000[k]	125.000[k]	205.000[k]	157.000[k]	161.000[k]	176.000[k]
Thallium	68.900[k]	54.900[k]	52.200[k]	30.900[k]	68.000[k]	36.300[k]	29.400[k]	34.900[k]	35.200[k]	39.200[k]
Vanadium	49.500	36.500	45.800	32.200[f]	51.600	35.800	29.100	34.400[f]	34.000	40.300
Zinc	172.000	90.700	28.700	18.600[f]	56.700	19.300	49.000	25.900[f]	61.900	31.800

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 12.4-8 Summary of Soil Boring Sample Detections, Disturbed Area 4, Baker Beach Study Area, Supplemental RI (page 2 of 2)

Sample ID	BBSB16	BBSB16	BBSB17	BBSB17	BBSB18	BBSB18	BBSB19	BBSB19	BBSB20	BBSB20
Sample Depth (ft bgs)	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
Sample Date	08/03/92	08/03/92	08/05/92	08/05/92	08/03/92	08/03/92	08/05/92	08/05/92	08/05/92	08/05/92
VOLATILE ORGANICS										
No detections above certified reporting limit										
SEMIVOLATILE ORGANICS										
No detections above certified reporting limit										
ORGANOCHLORINE PESTICIDES[c] (µg/g)										
Chlordane	0.400[a]	0.300[a]	<0.030	<0.030	<0.300[a]	<0.030	<0.030	<0.030	<0.030	<0.030
ppDDT	0.060[a]	0.100[a]	<0.006	<0.006	<0.060[a]	<0.006	<0.006	<0.006	0.006	<0.006
POLYCHLORINATED BIPHENYLS										
No detection above certified reporting limit										
CHLORINATED HERBICIDES										
No detection above certified detection limit										
TOTAL PETROLEUM HYDROCARBONS (µg/g)										
TPH-diesel fraction	80.000[a]	140.000[a]	12.000	8.000	20.000[a]	3.000	11.000	8.000	13.000	7.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
c = all detections are confirmed
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 13.4-1 Summary of Soil Boring Sample Detections, Battery Howe-Wagner, Supplemental RI (page 1 of 6)

Sample ID	HWSB01	HWSB01	HWSB01	HWSB02	HWSB02	HWSB02	HWSB03	HWSB03
Sample Depth (ft bgs)	0.2	2.2	23.5	0.5	13.0	28.0	0.2	2.2
Sample Date	08/03/92	08/03/92	08/04/92	08/03/92	08/03/92	08/03/92	08/03/92	08/03/92
INORGANICS (μg/g)								
Aluminum	10000.000[a]	10000.000[a]	18000.000[a]	13000.000[a]	7900.000[a]	6800.000[a]	13000.000[a]	8500.000[a]
Antimony	<41.300	<41.300	<41.300	<41.300	<41.300	190.000	<41.300	<41.300
Arsenic	5.700	3.830	4.510	4.460	4.310	1.270	4.260	4.510
Barium	58.300	69.600	233.000	77.400	81.100	14.300	82.300	101.000
Beryllium	1.060	1.150	1.290	1.010	0.788	<0.500	1.000	0.749
Cadmium	<0.515	<0.515	<0.515	<0.515	<0.515	2.330	<0.515	<0.515
Calcium	3400.000	3340.000	2980.000	2970.000	5870.000	9700.000[a]	3320.000	3850.000
Chromium	95.100	79.900	101.000	91.800	57.600	1580.000	84.500	57.000
Cobalt	39.900	37.500	40.000	39.100	34.300	180.000	41.200	25.900
Copper	12.400	13.800	27.700	16.600	23.800	44.900	18.000	18.300
Iron	25000.000[a]	22000.000[a]	31000.000[a]	26000.000[a]	21000.000[a]	58000.000[a]	26000.000[a]	16000.000[a]
Lead	4.600	4.190	11.000[a]	11.100	58.000[a]	0.482	9.700[a]	90.000[a]
Magnesium	3960.000	4000.000	5450.000	3580.000	2890.000	180000.000[a]	3900.000	3240.000
Manganese	306.000	308.000	302.000	348.000	226.000	612.000	335.000	245.000
Mercury	<0.027	<0.027	0.106	<0.027	0.108	<0.027	0.031	0.170
Nickel	88.800	99.000	105.000	79.700	51.000	2040.000	91.300	48.500
Potassium	626.000	650.000	872.000	746.000	732.000	<119.000	718.000	670.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 13.4-1 Summary of Soil Boring Sample Detections, Battery Howe-Wagner, Supplemental RI (page 2 of 6)

Sample ID	HWSB01	HWSB01	HWSB01	HWSB02	HWSB02	HWSB02	HWSB03	HWSB03
Sample Depth (ft bgs)	0.2	2.2	23.5	0.5	13.0	28.0	0.2	2.2
Sample Date	08/03/92	08/03/92	08/04/92	08/03/92	08/03/92	08/03/92	08/03/92	08/03/92
INORGANICS (continued) (μg/g)								
Silver	1.060	0.727	1.890	1.460	1.090	1.440	1.320	1.140
Sodium	227.000[k]	261.000[k]	533.000[k]	205.000[k]	199.000[k]	388.000[k]	194.000[k]	162.000[k]
Thallium	88.200[k]	79.600[k]	97.400[k]	88.200[k]	86.500[k]	250.000[k]	89.600[k]	48.600[k]
Vanadium	74.200	60.400	80.000	71.900	56.100	59.100	72.800	46.900
Zinc	38.500	39.000	55.200	40.200	80.300	53.700	43.400	75.200
VOLATILE ORGANICS								
Acetone	<0.046	<0.046	<0.046	<0.046	0.037[d]	<0.046	<0.046	<0.046
Methyl ethyl ketone	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	<0.005
SEMIVOLATILE ORGANICS								
Bis(2-ethylhexyl)phthalate	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	<0.920	<0.920	<0.920	<0.920
Phenanthrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.140
Pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.140

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 13.4-1 Summary of Soil Boring Sample Detections, Battery Howe-Wagner, Supplemental RI (page 3 of 6)

Sample ID	HWSB01	HWSB01	HWSB01	HWSB02	HWSB02	HWSB02	HWSB03	HWSB03
Sample Depth (ft bgs)	0.2	2.2	23.5	0.5	13.0	28.0	0.2	2.2
Sample Date	08/03/92	08/03/92	08/04/92	08/03/92	08/03/92	08/03/92	08/03/92	08/03/92
ORGANOCHLORINE PESTICIDES								
ppDDD	<0.006	<0.006	<0.006	<0.006	0.040[a,d]	<0.006	<0.006	<0.006
POLYCHLORINATED BIPHENYLS								
No detections above certified reporting limit								
CHLORINATED HERBICIDES								
No detections above method detection limit								
TOTAL PETROLEUM HYDROCARBONS (µg/g)								
TPH-diesel fraction	4.000	3.000	2.000	1.000	10.000	1.000	2.000	3.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 13.4-1 Summary of Soil Boring Sample Detections, Battery Howe-Wagner, Supplemental RI (page 4 of 6)

Sample ID	HWSB03	HWSB04	HWSB04	HWSB04	HWSB05	HWSB05	HWSB05
Sample Depth (ft bgs)	14.6	0.5	7.0	22.0	0.5	2.0	23.0
Sample Date	08/03/92	08/05/92	08/05/92	08/05/92	07/31/92	07/31/92	07/31/92
INORGANICS (μg/g)							
Aluminum	12000.000[a]	12000.000[a]	12000.000[a]	3600.000[a]	10000.000[a]	14000.000[a]	26000.000[a]
Antimony	<41.300	<41.300	125.000	<41.300	107.000	<41.300	<41.300
Arsenic	2.890	2.800	2.150	2.600	1.410	3.880	3.000[a]
Barium	143.000	129.000	75.900	16.000	86.600	87.800	144.000
Beryllium	1.100	1.220	0.877	<0.500	0.613	0.784	1.140
Cadmium	<0.515	<0.515	3.130	<0.515	1.620	<0.515	<0.515
Calcium	2590.000	2710.000	4490.000	2270.000	4050.000	3340.000	1260.000
Chromium	82.700	79.900	1300.000	40.600	590.000	132.000	142.000
Cobalt	34.400	37.900	153.000	12.600	120.000	38.700	55.200
Copper	19.400	18.100	31.400	6.390	26.600	20.300	24.000
Iron	22000.000[a]	26000.000	60000.000	8200.000	44000.000[a]	29000.000[a]	36000.000[a]
Lead	6.510	7.890	2.400	1.530	2.370	4.680	6.400
Magnesium	2380.000	2600.000	100000.000	1820.000	110000.000[a]	5780.000	5220.000
Manganese	374.000	535.000	1140.000	97.400	1130.000	249.000	596.000
Mercury	0.049	0.035	0.034	<0.027	0.042	0.042	0.057
Nickel	41.300	55.400	2310.000	21.800	1370.000	141.000	155.000
Potassium	774.000	1110.000	310.000	208.000	473.000	747.000	804.000

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 13.4-1 Summary of Soil Boring Sample Detections, Battery Howe-Wagner, Supplemental RI (page 5 of 6)

Sample ID	HWSB03	HWSB04	HWSB04	HWSB04	HWSB05	HWSB05	HWSB05
Sample Depth (ft bgs)	14.6	0.5	7.0	22.0	0.5	2.0	23.0
Sample Date	08/03/92	08/05/92	08/05/92	08/05/92	07/31/92	07/31/92	07/31/92
INORGANICS (continued) (μg/g)							
Silver	0.793	1.350	2.330	0.864	<0.521	0.912	0.855
Sodium	253.000$_{k}$	178.000$_{k}$	376.000$_{k}$	159.000$_{k}$	199.000$_{k}$	227.000$_{k}$	700.000$_{k}$
Thallium	82.100^{k}	79.900^{k}	219.000^{k}	20.600^{k}	178.000^{k}	114.000^{k}	145.000^{k}
Vanadium	73.600	69.900	69.000	25.000	60.300	72.700	85.800
Zinc	41.900	41.900	53.700	14.900^{f}	44.400	40.800	47.100
VOLATILE ORGANICS							
Acetone	0.061$_{f}$	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046$_{f}$
Methyl ethyl ketone	0.018^{f}	<0.005	<0.005	<0.005	<0.005	<0.005	0.005^{f}
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl)phthalate	<0.390	<0.390	<0.390	<0.390	<0.390	<0.390	1.270^{e}
Di-n-butylphthalate	<0.920	<0.920	<0.920	<0.920	<0.920	1.100^{e}	<0.920
Phenanthrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033

μg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 13.4-1 Summary of Soil Boring Sample Detections, Battery Howe-Wagner, Supplemental RI (page 6 of 6)

Sample ID	HWSB03	HWSB04	HWSB04	HWSB04	HWSB05	HWSB05	HWSB05
Sample Depth (ft bgs)	14.6	0.5	7.0	22.0	0.5	2.0	23.0
Sample Date	08/03/92	08/05/92	08/05/92	08/05/92	07/31/92	07/31/92	07/31/92
ORGANOCHLORINE PESTICIDES							
ppDDD	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
POLYCHLORINATED BIPHENYLS							
No detection above certified reporting limit							
CHLORINATED HERBICIDES							
No detection above method detection limit							
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction	6.000	11.000	5.000	6.000	19.000	4.000	4.000

µg/g = micrograms per gram
< = less than certified reporting limit or method detection limit
a = diluted sample
d = estimated value - below certified reporting limit or method detection limit
e = estimated value - method 99
f = data affected by blank contamination
k = data not verified by other lab results

Table 15.4-2 Summary of Soil Boring Sample Detections Associated with Boring HWSB04, Battery Howe-Wagner, Follow-on RI (page 1 of 3)

Sample ID	HWSB06	HWSB06	HWSB06	HWSB06	HWSB06	HWSB06	HWSB07
Sample Depth (ft bgs)	4.0	4.5	8.0	8.5	14.0	14.5	4.5
Sample Date	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94
INORGANICS (µg/g)							
Antimony							
No detections above reporting limit							
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	1670	NA	521	NA	3210	NA	NA
No detections above reporting limit							

µg/g = microgram per gram

Table 13.4-2 Summary of Soil Boring Sample Detections Associated with Boring HWSB04, Battery Howe-Wagner, Follow-on RI (page 2 of 3)

Sample ID	HWSB07	HWSB07	HWSB08	HWSB08	HWSB08	HWSB09	HWSB09
Sample Depth (ft bgs)	7.0	14.5	4.5	7.0	14.5	4.5	7.0
Sample Date	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94
INORGANICS (µg/g)							
Antimony							
No detections above reporting limit							
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA
No detections above reporting limit							

µg/g = microgram per gram

Table 13.4-2 Summary of Soil Boring Sample Detections Associated with Boring HWSB04, Battery Howe-Wagner, Follow-on RI (page 3 of 3)

Sample ID	HWSB09
Sample Depth (ft bgs)	14.5
Sample Date	11/30/94

INORGANICS (µg/g)

Antimony

No detections above reporting limit

MISCELLANEOUS PARAMETERS (µg/g)

Total Organic Carbon NA

No detections above reporting limit

µg/g = microgram per gram

Table 13.4-3 Summary of Soil Boring Sample Detections Associated with Boring HWSB05, Battery Howe-Wagner, Follow-on RI (page 1 of 2)

Sample ID	HWSB10	HWSB10	HWSB11	HWSB11	HWSB12	HWSB12	HWSB13
Sample Depth (ft bgs)	0.5	6.5	0.5	6.5	0.5	6.5	0.5
Sample Date	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94	11/30/94
INORGANICS (µg/g)							
Antimony							
No detections above reporting limit							

µg/g = microgram per gram

Table 13.4-3 Summary of Soil Boring Sample Detections Associated with Boring HWSB05, Battery Howe-Wagner, Follow-on RI (page 2 of 2)

Sample ID	HWSB13
Sample Depth (ft bgs)	6.5
Sample Date	11/30/94

INORGANICS (µg/g)

Antimony

No detections above reporting limit

µg/g = microgram per gram

Table 13.4-4 Summary of Groundwater Sample Detections, Battery Howe-Wagner, Supplemental RI (page 1 of 2)

Sample ID	HWGW01	HWGW01	HWGW04	HWGW05	HWGW05
Sample Date	08/25/92 Filtered Inorganics	8/25/92 Unfiltered Inorganics	08/25/92 Filtered Inorganics	08/25/92 Filtered Inorganics	8/25/92 Unfiltered Inorganics
INORGANICS: filtered, except for cyanide and mercury (μg/L)					
Aluminum	<141.000	635.000	<141.000	<141.000	1490.000
Arsenic	4.260	3.840	6.400	6.610	7.140
Barium	23.100	27.200	10.400	6.550	8.820
Calcium	22000.000	21800.000	19000.000	24400.000	22700.000
Chromium	111.000	144.000	13.300	18.900	54.700
Copper	<8.090	<8.090	15.000	<8.090	15.000
Iron	<38.8	1920.000	<38.8	77.400	2640.000
Lead	2.170	2.060	6.620	<1.260	3.470
Magnesium	94200.000	99800.000	48400.000	47700.000	48800.000
Manganese	12.700	126.000	5.200	103.000	114.000
Nickel	<34.300	149.000	<34.300	15.600	85.300
Potassium	4510.000	3430.000	4760.000	7470.000	6530.000
Sodium	254000.000	252000.000	122000.000	252000.000	239000.000
Vanadium	20.200	16.600[d]	12.800	12.000	12.800
Zinc	<21.100	11.900[d]	<21.100	<21.100	<21.100
MISCELLANEOUS PARAMETERS (μg/L)					
Alkalinity					
Total	560000.000		398000.000	624000.000	
Bicarbonate	534000.000		326000.000	511000.000	
Carbonate	8920.000		3690.000	6050.000	
Hydroxide	89.000		60.000	63.000	
Chloride	250000.000		96000.000	170000.000	
Nitrate	6300.000[a]		6200.000[a]	145.000	
Sulfate	65000.000[a]		61600.000[a]	62000.000[a]	
TDS	1120000.000		607000.000	896000.000	

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
NA = not analyzed
[a] = diluted sample
[d] = estimated value - below certified reporting limit or method detection limit

Table 13.4-4 Summary of Groundwater Sample Detections, Battery Howe-Wagner, Supplemental RI (page 2 of 2)

Sample ID	HWGW01	HWGW04	HWGW05
Sample Date	08/25/92	08/25/92	08/25/92
VOLATILE ORGANICS (μg/L)			
Acetone	<17.000	<17.000	50.000
Carbon tetrachloride	0.870	<0.070	<0.070
Methyl ethyl ketone	<6.200	<6.200	8.800
SEMIVOLATILE ORGANICS			
No detections above certified reporting limit			
ORGANOCHLORINE PESTICIDES			
No detections above method detection limit			
POLYCHLORINATED BIPHENYLS			
No detections above certified reporting limit			
CHLORINATED HERBICIDES			
No detections above method detection limit			
TOTAL PETROLEUM HYDROCARBONS (μg/L)			
TPH-diesel fraction	<50.000	60.000	<50.000

μg/L = micrograms per liter
< = less than certified reporting limit or method detection limit
NA = not analyzed
[a] = diluted sample
[d] = estimated value - below certified reporting limit or method detection limit

Table 13.4-5 Summary of Groundwater Sample Detections, Battery Howe-Wagner, Follow-on RI (page 1 of 3)

Sample ID	HWGW01	HWGW01	HWGW01	HWGW04	HWGW04	HWGW05	HWGW05
Sample Depth (ft bgs)	15.0	24.0	25.0	18.0	23.0	30.0	31.0
Sample Date	01/11/95	11/07/94	12/05/94	01/11/95	11/09/94	01/11/95	11/09/94
INORGANICS (µg/L)							
Aluminum	NA	49.0	NA	NA	184[f]	NA	1480
Antimony	NA	<1.11	NA	NA	1.47[f]	NA	1.47[f]
Antimony (F)	NA	7.50	NA	NA	9.90	NA	8.60
Arsenic	NA	<1.70	NA	NA	<1.70	NA	3.36
Arsenic (F)	NA	<1.70[n]	NA	NA	<1.70	NA	2.00
Barium	NA	52.0	NA	NA	74.0	NA	27.0
Barium (F)	NA	56.0	NA	NA	26.0	NA	17.0
Beryllium	NA	<1.00	NA	NA	20.0	NA	<1.00
Beryllium (F)	NA	<1.00	NA	NA	1.00	NA	<1.00
Cadmium	NA	<3.00	NA	NA	19.0	NA	<3.00
Calcium	NA	19300	NA	NA	14600	NA	37800
Calcium (F)	NA	20900	NA	NA	16700	NA	33500
Chromium	NA	118	150	NA	33.0	NA	27.0
Chromium (F)	NA	107	121	NA	19.0	NA	<5.00
Chromium VI	NA	220	161	NA	36.6[n]	NA	16.1[n]
Chromium VI (F)	NA	NA	161	NA	NA	NA	NA
Cobalt	NA	<7.00	NA	NA	21.0	NA	<7.00
Copper	NA	<1.00	NA	NA	<1.00[n]	NA	2.98[f]
Copper (F)	NA	5.96	NA	NA	5.54	NA	5.79
Iron	NA	100	NA	NA	205	NA	2020
Iron (F)	NA	<8.00	NA	NA	<8.00	NA	17.0
Lead	NA	<0.735	NA	NA	<0.735	NA	1.66
Magnesium	NA	98900	NA	NA	48500	NA	74100
Magnesium (F)	NA	89900	NA	NA	48600	NA	51600
Manganese	NA	11.0	NA	NA	7.00	NA	475

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ted value
[p] = unreliable data

Table 13.4-5 Summary of Groundwater Sample Detections, Battery Howe-Wagner, Follow-on RI (page 2 of 3)

Sample ID	HWGW01	HWGW01	HWGW01	HWGW04	HWGW04	HWGW05	HWGW05
Sample Depth (ft bgs)	15.0	24.0	25.0	18.0	23.0	30.0	31.0
Sample Date	01/11/95	11/07/94	12/05/94	01/11/95	11/09/94	01/11/95	11/09/94
INORGANICS (µg/L)							
Manganese (F)	NA	<6.00	NA	NA	<6.00	NA	358
Mercury	NA	0.700[f]	NA	NA	<0.110	NA	0.800[f]
Nickel	NA	9.45	NA	NA	23.4	NA	75.6[a]
Nickel (F)	NA	5.10	NA	NA	<5.00	NA	25.3
Potassium	NA	1070	NA	NA	1280	NA	10200
Potassium (F)	NA	<500	NA	NA	584	NA	7620
Silver	NA	4.00[f]	NA	NA	15.0	NA	<2.00[p]
Silver (F)	NA	2.00	NA	NA	<2.00	NA	<2.00
Sodium	NA	241000	NA	NA	25100	NA	262000
Sodium (F)	NA	248000	NA	NA	107000	NA	201000
Thallium	NA	<0.811	NA	NA	<0.811	NA	0.840
Vanadium	NA	4.00	NA	NA	22.0	NA	14.0
Vanadium (F)	NA	<4.00	NA	NA	<4.00	NA	9.00
Zinc	NA	4.00[f]	NA	NA	24.0	NA	12.0
Zinc (F)	NA	<4.00	NA	NA	<4.00	NA	6.00
MISCELLANEOUS PARAMETERS (µg/L)							
Alkalinity (Total as CaCO3)	NA	647000	NA	NA	376000	NA	800000
Bicarbonate Alkalinity	NA	647000	NA	NA	376000	NA	800000
Chloride	NA	289000	NA	NA	65300	NA	125000
Nitrate	NA	11100	NA	NA	5460	NA	5440
Sulfate	NA	88700	NA	NA	54300	NA	74200
Total Dissolved Solids	NA	1020000	NA	NA	546000	NA	990000

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = estimated value
[p] = unreliable data

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Table 13.4-5 Summary of Groundwater Sample Detections, Battery Howe-Wagner, Follow-on RI (page 3 of 3)

Sample ID	HWGW01	HWGW01	HWGW01	HWGW04	HWGW04	HWGW05	HWGW05
Sample Depth (ft bgs)	15.0	24.0	25.0	18.0	23.0	30.0	31.0
Sample Date	01/11/95	11/07/94	12/05/94	01/11/95	11/09/94	01/11/95	11/09/94
VOLATILE ORGANICS (µg/L)							
1,2-Dichloroethane	1.41	NA	NA	0.760	NA	1.85	NA
Chloroform	0.680[f]	NA	NA	<0.124	NA	<0.124	NA
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	NA	3.79[f]	NA	NA	<2.34	NA	60.1
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
POLYCHLORINATED BIPHENYLS (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/L)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[n] = [redacted]ted value
[p] = unreliable data

Table 13.4-6 Summary of Discrete Groundwater Sample Detections Associated with Well HWGW01, Battery Howe-Wagner, Follow-on RI (page 1 of 1)

Sample ID	HWSB14	HWSB17	HWSB18	HWSB18
Sample Depth (ft bgs)	24.0	28.0	20.0	24.0
Sample Date	01/09/95	01/10/95	04/05/95	04/05/95
INORGANICS (µg/L)				
Chromium	<10	1100	50	510
Chromium (F)	710	<10	20	30
Chromium VI	60	<10	<10	<10
Chromium VI (F)	<10	<10	30	30
VOLATILE ORGANICS (µg/L)				
Carbon Tetrachloride And Breakdown Products				
No detections above reporting limit				

µg/L = microgram per Liter (F) = Filtered
< = less than reporting limit

Table 14.1-1 Summary of Soil Boring Sample Detections, Building 302, Follow-on RI (page 1 of 4)

Sample ID	302SB01	302SB01	302SB01	302SB02	302SB03	302SB03	302SB03
Sample Depth (ft bgs)	0.5	2.0	5.0	0.5	2.0	3.5	5.0
Sample Date	04/04/95	04/04/95	04/04/95	04/04/95	04/06/95	04/06/95	04/06/95
INORGANICS (µg/g)							
Aluminum	8820	22200	12400	10900	12500	17900	15700
Arsenic	3.37	2.1	3.72	1.98	3.44	2.58	2.13
Barium	131	131	105	108	137	147	106
Beryllium	0.37	0.66	0.43	0.42	0.59	0.72	0.41
Calcium	37000	1970	30900	71100	5780	2090	2010
Chromium	25	149	59.1	27	106	146	143
Cobalt	5.48	25.6	10.3	6.07	14.7	21.3	8.94
Copper	34.7	19.7	23.8	31.5	20.6	16.7	13.7
Cyanide	<0.4	0.509	<0.4	0.776	0.645[n]	<0.4[n]	0.811[n]
Iron	13000	26900	16100	15300	20700	31300	23800
Lead	11.9	2.24	8.7	4.64	33.6[a]	5.36	5.82
Magnesium	4210	3390	4480	7050	3670	3330	4800
Manganese	580	555	498	424	476	530	241
Mercury	0.174	<0.01	0.073	<0.01	2.42[n]	<0.01[n]	<0.01[n]
Nickel	36.1	119	74.8	40.9	78.7	90.3	120
Potassium	1180	1350	1070	1150	1550	1120	670
Selenium	1.02[n]	0.498[n]	0.713[n]	0.609[n]	0.909[n]	0.982[n]	1.18[n]
Sodium	217	281	259	333	251	303	517
Vanadium	20.3	62.8	32	22.4	55.8	66.7	47.1
Zinc	39.8	47.6	42.8	53.6	63.1	48.2	42.8
ORGANOCHLORINE PESTICIDES (µg/g)							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 14.1-1 Summary of Soil Boring Sample Detections, Building 302, Follow-on RI (page 2 of 4)

Sample ID	302SB01	302SB01	302SB01	302SB02	302SB03	302SB03	302SB03
Sample Depth (ft bgs)	0.5	2.0	5.0	0.5	2.0	3.5	5.0
Sample Date	04/04/95	04/04/95	04/04/95	04/04/95	04/06/95	04/06/95	04/06/95
CHLORINATED HERBICIDES (µg/g)							
2,4-D	<0.006	<0.006	0.0154	<0.006	0.0378	0.00933	<0.006
Dicamba	<0.002	<0.002	<0.002	<0.002	0.0493	<0.002	<0.002

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 14.1-1 Summary of Soil Boring Sample Detections, Building 302, Follow-on RI (page 3 of 4)

Sample ID	302SB04	302SB04
Sample Depth (ft bgs)	3.0	5.0
Sample Date	04/06/95	04/06/95
INORGANICS (µg/g)		
Aluminum	22600	15700
Arsenic	5.1	2.98
Barium	96.4	89.3
Beryllium	0.561	0.44
Calcium	1180	2170
Chromium	117	161
Cobalt	19.9	20.5
Copper	18.2	16.8
Cyanide	<0.4[n]	<0.4[n]
Iron	26100	27300
Lead	8.31	5.21
Magnesium	3270	4290
Manganese	497	552
Mercury	<0.01[n]	<0.01[n]
Nickel	128	236
Potassium	1040	669
Selenium	1.56[n]	1.23[n]
Sodium	296	522
Vanadium	51.5	50.5
Zinc	46.7	50
ORGANOCHLORINE PESTICIDES (µg/g)		
No detections above reporting limit		

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[n] = estimated value

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Table 14.1-1 Summary of Soil Boring Sample Detections, Building 302, Follow-on RI (page 4 of 4)

Sample ID	302SB04	302SB04
Sample Depth (ft bgs)	3.0	5.0
Sample Date	04/06/95	04/06/95
CHLORINATED HERBICIDES (µg/g)		
2,4-D	<0.006	0.0121
Dicamba	<0.002	<0.002

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[n] = estimated value

Table 14.3-1 Summary of Soil Boring Sample Detections, Building 1245, Follow-on RI (page 1 of 1)

Sample ID	1245SB01	1245SB01	1245SB02	1245SB02
Sample Depth (ft bgs)	0.7	2.7	0.7	2.7
Sample Date	12/06/94	12/06/94	12/06/94	12/06/94
MISCELLANEOUS PARAMETERS (µg/g)				
Total Organic Carbon	3340	12200	NA	NA
SEMIVOLATILE ORGANICS (µg/g)				
Bis(2-ethylhexyl) phthalate	0.0978 [f]	0.124 [f]	0.108 [f]	0.0964 [f]
Di-n-butylphthalate	0.0909	0.0787	0.0905	<0.0625
Fluoranthene	<0.0550	<0.0550	0.0750	0.0873
Pyrene	<0.0475	<0.0475	0.0643	0.0654
ORGANOCHLORINE PESTICIDES (µg/g)				
Dieldrin	<0.0063	0.0071 [c]	0.0021 [c]	0.0050 [c]
ppDDE	<0.0076	0.0130 [c]	0.0044 [c]	0.0087 [c]
ppDDT	<0.0071	0.0773 [ac]	0.0083 [c]	0.0319 [c]
CHLORINATED HERBICIDES (µg/g)				
No detections above reporting limit				
TOTAL PETROLEUM HYDROCARBONS (µg/g)				
TPH-diesel fraction				
No detections above reporting limit				
TPH-gas fraction				
No detections above reporting limit				

µg/g = microgram per gram
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[c] = confirmed detection
[f] = data affected by blank contamination

Table 14.4-1 Summary of Soil Boring Sample Detections, Building 1369, Follow-on RI (page 1 of 1)

Sample ID	1369SB01	1369SB01	1369SB01	1369SB02	1369SB03	1369SB04
Sample Depth (ft bgs)	0.5	2.0	3.2	0.0	0.0	0.0
Sample Date	12/12/94	12/12/94	12/21/94	12/21/94	12/21/94	12/21/94
INORGANICS (µg/g)						
Lead-XRF	365	291	<25	183	149	120

µg/g = microgram per gram

< = less than reporting limit

Table 14.5-1 Summary of Soil Boring Sample Detections, Building 1388, Follow-on RI (page 1 of 3)

Sample ID	1388SB01	1388SB01	1388SB01	1388SB02	1388SB02	1388SB02	1388SB02
Sample Depth (ft bgs)	0.5	5.0	9.5	0.5	1.0	4.5	5.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	4750	NA	2840
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<100	<10	<10	<10	NA	<10	NA
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 14.5-1 Summary of Soil Boring Sample Detections, Building 1388, Follow-on RI (page 2 of 3)

Sample ID	1388SB02	1388SB02	1388SB03	1388SB03	1388SB03	1388SB04	1388SB04
Sample Depth (ft bgs)	9.0	9.5	0.5	5.0	9.5	0.5	5.0
Sample Date	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94	11/20/94
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	856	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<10	NA	<100	<10	<10	<10	<10
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 14.5-1 Summary of Soil Boring Sample Detections, Building 1388, Follow-on RI (page 3 of 3)

Sample ID	1388SB04	1388SB05	1388SB05	1388SB05	1388SB06	1388SB06	1388SB06
Sample Depth (ft bgs)	9.5	0.5	4.5	9.5	0.5	4.5	9.5
Sample Date	11/20/94	11/29/94	11/29/94	11/29/94	11/29/94	11/29/94	11/29/94
MISCELLANEOUS PARAMETERS (µg/g)							
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH (immunoassay)	<10	>100[a]	<9.9	<10	<10	<9.8	<100
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
> = greater than reporting limit
NA = not analyzed
[a] = diluted sample

Table 14.6-1 Summary of Soil Boring Sample Detections, Building 1750, Follow-on RI (page 1 of 1)

Sample ID	1750SB01
Sample Depth (ft bgs)	10.0
Sample Date	01/10/95

SEMIVOLATILE ORGANICS (µg/g)

No detections above reporting limit

µg/g = microgram per gram

Table 14.7-1 Summary of Soil Boring Sample Detections, East of Mason Site, Follow-on RI (page 1 of 4)

Sample ID	EOMSB01	EOMSB01	EOMSB02	EOMSB02	EOMSB03	EOMSB03	EOMSB04
Sample Depth (ft bgs)	0.5	4.5	0.5	4.5	0.5	4.9	0.5
Sample Date	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94	11/16/94
INORGANICS (µg/g)							
Aluminum	6740	3290	8520	3690	11800	4140	5460
Arsenic	2.27[a]	2.64[a]	3.24[a]	3.80[a]	4.49[a]	3.85[a]	2.30[a]
Barium	44.5	7.28	140	7.18	128	14.5	27.3
Beryllium	0.245	0.126	0.337	0.134	0.552	0.171	0.163
Calcium	3780	1690	2140	2150	6050	2750	6300
Chromium	42.4	20.7	43.8	23.1	48.6	50.9	33.3
Cobalt	7.69	4.35	13.2	5.77	14.2	8.94	0.644
Copper	7.90	4.55	26.7	3.93	43.1	5.21	7.28
Iron	13700	6950	13500	9050	22300	9500	9350
Lead	40.8	20.9	71.9	2.47	60.1	3.65	44.5
Magnesium	2850	2330	3010	3380	3600	3770	4110
Manganese	171	102	537	118	473	205	176
Mercury	0.0910	<0.0590	0.123	<0.0590	0.153	<0.0590	0.0765
Nickel	25.0	19.3	43.4	25.5	37.8	32.8	29.3
Potassium	531	388	726	440	867	387	545
Sodium	109	80.8	137	91.2	120	93.3	130
Vanadium	40.1	14.6	27.9	16.2	41.3	19.7	19.9
Zinc	41.0	12.7	39.9	15.0	81.3	20.3	28.2
VOLATILE ORGANICS (µg/g)							
Acetone	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0720[a]	<0.0072
Methylene chloride (Dichloromethane)	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0380[a]	<0.0024

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

[p] = unreliable data

Table 14.7-1 Summary of Soil Boring Sample Detections, East of Mason Site, Follow-on RI (page 2 of 4)

Sample ID	EOMSB01	EOMSB01	EOMSB02	EOMSB02	EOMSB03	EOMSB03	EOMSB04
Sample Depth (ft bgs)	0.5	4.5	0.5	4.5	0.5	4.9	0.5
Sample Date	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94	11/15/94	11/16/94
SEMIVOLATILE ORGANICS (µg/g)							
Bis(2-chloroethoxy) methane	0.188	<0.133	<0.133	0.185	0.569	0.196	0.163
Bis(2-ethylhexyl) phthalate	<0.0625	<0.0625	0.404	<0.0625	<0.0625	<0.0625	<0.0625
Di-n-butylphthalate	<0.0625	<0.0625	0.0793	0.0686	<0.0625	<0.0625	0.0670
Fluoranthene	<0.0550	<0.0550	0.0870	<0.0550	<0.0550	<0.0550	<0.0550
Pyrene	<0.0475	<0.0475	0.118	<0.0475	<0.0475	<0.0475	<0.0475
ORGANOCHLORINE PESTICIDES (µg/g)							
ppDDE	<0.0004[p]	<0.0004	<0.0004[p]	<0.0004	<0.0004	<0.0004[p]	<0.0004
ppDDT	<0.0003[p]	<0.0003	<0.0003[p]	<0.0003	<0.0003	<0.0003[p]	<0.0003
CHLORINATED HERBICIDES (µg/g)							
No detections above reporting limit							
TOTAL PETROLEUM HYDROCARBONS (µg/g)							
TPH-diesel fraction							
No detections above reporting limit							
TPH-gas fraction							
No detections above reporting limit							

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[p] = unreliable data

Table 14.7-1 Summary of Soil Boring Sample Detections, East of Mason Site, Follow-on RI (page 3 of 4)

Sample ID	EOMSB04	EOMSB05	EOMSB05
Sample Depth (ft bgs)	4.5	0.5	4.5
Sample Date	11/16/94	11/16/94	11/16/94
INORGANICS (µg/g)			
Aluminum	3870	14100	4630
Arsenic	2.51[a]	2.30[a]	2.73[a]
Barium	22.0	127	29.7
Beryllium	0.146	0.418	0.166
Calcium	2020	3510	2320
Chromium	27.1	61.8	32.6
Cobalt	5.05	12.3	5.72
Copper	5.72	17.6	6.98
Iron	8250	17500	9400
Lead	7.61	35.3	7.08
Magnesium	2740	3080	3070
Manganese	113	425	114
Mercury	<0.0590	0.118	<0.0590
Nickel	21.4	39.5	24.7
Potassium	414	934	444
Sodium	164	97.8	87.9
Vanadium	16.3	46.5	19.4
Zinc	18.2	68.0	26.3
VOLATILE ORGANICS (µg/g)			
Acetone	0.122	<0.0072	<0.0072
Methylene chloride (Dichloromethane)	0.0254	0.0062	0.0027

µg/g = microgram per gram

< = less than reporting limit

[a] = diluted sample

[p] = unreliable data

Table 14.7-1 Summary of Soil Boring Sample Detections, East of Mason Site, Follow-on RI (page 4 of 4)

Sample ID	EOMSB04	EOMSB05	EOMSB05
Sample Depth (ft bgs)	4.5	0.5	4.5
Sample Date	11/16/94	11/16/94	11/16/94
SEMIVOLATILE ORGANICS (µg/g)			
Bis(2-chloroethoxy) methane	0.306	0.225	<0.133
Bis(2-ethylhexyl) phthalate	<0.0625	<0.0625	<0.0625
Di-n-butylphthalate	0.0843	<0.0625	<0.0625
Fluoranthene	<0.0550	<0.0550	<0.0550
Pyrene	<0.0475	<0.0475	<0.0475
ORGANOCHLORINE PESTICIDES (µg/g)			
ppDDE	<0.0004	8.49	<0.0004
ppDDT	<0.0003	4.66	<0.0003
CHLORINATED HERBICIDES (µg/g)			
No detections above reporting limit			
TOTAL PETROLEUM HYDROCARBONS (µg/g)			
TPH-diesel fraction			
No detections above reporting limit			
TPH-gas fraction			
No detections above reporting limit			

µg/g = microgram per gram

< = less than reporting limit
[a] = diluted sample
[p] = unreliable data

Table 14.7-2 Summary of Discrete Groundwater Sample Detections, East of Mason Site, Follow-on RI (page 1 of 4)

Sample ID	EOMSB01	EOMSB02	EOMSB02	EOMSB03	EOMSB03	EOMSB04	EOMSB04
Sample Depth (ft bgs)	7.0	8.3	10.0	8.5	10.0	8.5	10.0
Sample Date	11/15/94	11/16/94	04/13/95	11/16/94	04/12/95	11/16/94	04/12/95
INORGANICS (µg/L)							
Aluminum	17600	58800	6400	180000	7500	32400	4000
Aluminum (F)	NA	NA	160	NA	70	NA	<50
Antimony	2.21	<1.11	<5	<1.11	<10	<1.11	<10
Arsenic	19.5	49.6[a]	12	169[a]	<5	12.3	<5
Barium	181	517	72	878	150	484	200
Barium (F)	NA	NA	19	NA	<15	NA	90
Beryllium	<1.00	2.00[f]	<5	5.00[f]	9	2.00[f]	<5
Beryllium (F)	NA	NA	7	NA	<5	NA	<5
Cadmium	8.00[f]	<3.00	<5	<3.00	12	<3.00	<5
Cadmium (F)	NA	NA	7	NA	<5	NA	<5
Calcium	120000	127000	110000	149000	56000	125000	170000
Calcium (F)	NA	NA	97000	NA	16000	NA	160000
Chromium	168	628[f]	140	101[f]	90	1030	250
Chromium (F)	NA	NA	<10	NA	30	NA	<10
Cobalt	89.0	207[f]	50	1.70[f]	30	160	30
Cobalt (F)	NA	NA	<10	NA	<10	NA	<10
Copper	564[a]	87.6[f]	20	306[a]	<20	92.4[f]	<20
Iron	48100	164000	26000	319000	70000	197000	67000
Iron (F)	NA	NA	380	NA	4500	NA	9400
Lead	26.5	42.4	<5	2160[a]	<5	37.4	<5
Magnesium	37000	84800	48000	51500	59000	82000	60000
Magnesium (F)	NA	NA	39000	NA	29000	NA	55000
Manganese	2100	6320[f]	890	3480[f]	660	1700	790
Manganese (F)	NA	NA	320	NA	<50	NA	250
Mercury	<0.110	<0.110	NA	0.600[f]	NA	0.600[f]	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

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Table 14.7-2 Summary of Discrete Groundwater Sample Detections, East of Mason Site, Follow-on RI (page 2 of 4)

Sample ID	EOMSB01	EOMSB02	EOMSB02	EOMSB03	EOMSB03	EOMSB04	EOMSB04
Sample Depth (ft bgs)	7.0	8.3	10.0	8.5	10.0	8.5	10.0
Sample Date	11/15/94	11/16/94	04/13/95	11/16/94	04/12/95	11/16/94	04/12/95
INORGANICS (µg/L)							
Nickel	772[a]	574[a]	150	1520[a]	530	1320	260
Nickel (F)	NA	NA	30	NA	<20	NA	<20
Potassium	14400	17400	9000	51500	48000	19500	20000
Potassium (F)	NA	NA	8000	NA	30000	NA	15000
Silver	6.00[f]	<2.00[p]	<20	<2.00[p]	<20	<2.00[p]	<20
Sodium	214000	114000	130000	225000	380000	324000	360000
Sodium (F)	NA	NA	120000	NA	380000	NA	370000
Thallium	1.00[f]	<0.811	<10	1.37[f]	<10	1.05[f]	<10
Vanadium	79.0	244[f]	<30	597[f]	140	257	60
Zinc	335	241	50[f]	789	170	239	100
Zinc (F)	NA	NA	30	NA	<20	NA	<20
SEMIVOLATILE ORGANICS (µg/L)							
Bis(2-ethylhexyl) phthalate	3.97[f]	56.2	NA	3.64[f]	NA	7.86[f]	NA
ORGANOCHLORINE PESTICIDES (µg/L)							
No detections above reporting limit							
CHLORINATED HERBICIDES (µg/L)							
No detections above reporting limit							

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[p] = [illegible]able data

Table 14.7-2 Summary of Discrete Groundwater Sample Detections, East of Mason Site, Follow-on RI (page 3 of 4)

Sample ID	EOMSB05	EOMSB05
Sample Depth (ft bgs)	8.3	10.0
Sample Date	11/16/94	04/13/95
INORGANICS (µg/L)		
Aluminum	125000	5600
Aluminum (F)	NA	<50
Antimony	1.37	<10
Arsenic	108[a]	11
Barium	339	230
Barium (F)	NA	20
Beryllium	<3.00	<5
Beryllium (F)	NA	<5
Cadmium	<3.00	<5
Cadmium (F)	NA	<5
Calcium	62300	89000
Calcium (F)	NA	53000
Chromium	1700[f]	180
Chromium (F)	NA	<10
Cobalt	113[f]	50
Cobalt (F)	NA	40
Copper	200[a]	20
Iron	224000	31000
Iron (F)	NA	910
Lead	100[a]	<5
Magnesium	206000	45000
Magnesium (F)	NA	34000
Manganese	1850[f]	1400
Manganese (F)	NA	380
Mercury	0.500[f]	NA

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[p] = unreliable data

Table 14.7-2 Summary of Discrete Groundwater Sample Detections, East of Mason Site, Follow-on RI (page 4 of 4)

Sample ID	EOMSB05	EOMSB05
Sample Depth (ft bgs)	8.3	10.0
Sample Date	11/16/94	04/13/95
INORGANICS (µg/L)		
Nickel	1210[a]	470
Nickel (F)	NA	<20
Potassium	65800	13000
Potassium (F)	NA	12000
Silver	<2.00[p]	<20
Sodium	342000	270000
Sodium (F)	NA	260000
Thallium	3.15[f]	<10
Vanadium	606[f]	50
Zinc	443	90[f]
Zinc (F)	NA	20
SEMIVOLATILE ORGANICS (µg/L)		
Bis(2-ethylhexyl) phthalate	3.16[f]	NA
ORGANOCHLORINE PESTICIDES (µg/L)		
No detections above reporting limit		
CHLORINATED HERBICIDES (µg/L)		
No detections above reporting limit		

µg/L = microgram per Liter
(F) = Filtered
< = less than reporting limit
NA = not analyzed
[a] = diluted sample
[f] = data affected by blank contamination
[p] = [illegible]ble data

Table 15.1-1 Screening of Chemicals of Concern for the Nike Facility -- Building 1450/1451

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
SEMIVOLATILE ORGANICS							
TPH-diesel fraction	1	3	33	22.30	22.30	NA	No
n-nonane					14.50	4800	No
naphthalene					7.81	1380	No
SUBSURFACE SOIL							
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	8	9	89	0.0769	0.231	32	No
Phenol	6	11	55	0.572	1.06	39000	No
TPH-diesel fraction	1	11	9	22.2	22.2	NA	No
n-nonane					14.43	4800	No
naphthalene					7.77	1380	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-2 Screening of Chemicals of Concern for the Nike Facility -- Silo/Storage Area

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Arsenic	7	7	100	3.536	113.636	0.38	Yes
Copper	7	7	100	25.012	287.172	2800	No
Lead	17	21	81	33.6	2142.99	840	Yes
Selenium	2	7	29	0.821	1.17	380	No
Zinc	10	11	91	69.806	1661.492	23000	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	3	7	43	0.91	3.97	32	No
Butylbenzyl phthalate	2	7	29	0.43	2.7	930	No
TPH-diesel fraction	2	2	100	140	1400	NA	No
n-nonane					910	4800	No
naphthalene					490	1380	No
Trichlorofluoromethane	1	7	14	0.006	0.006	380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthene	1	29	3	0.311	0.311	110	No
Acenaphthylene	2	29	7	0.1	0.44	NA	Yes
Anthracene	3	29	10	0.22	0.22	5.7	No
Benzo(a)anthracene	5	29	17	0.71	2.51	0.61	Yes
Benzo(a)pyrene	3	29	10	0.14	1.6	0.061	Yes
Benzo(b)fluoranthene	2	29	7	1.4	3.44	0.61	Yes
Benzo(g,h,i)perylene	1	29	3	0.24	0.24	NA	No
Benzo(k)fluoranthene	1	7	14	2.12	2.12	0.61	Yes
Chrysene	6	29	21	1.11	2.79	6.1	No
Fluoranthene	10	29	34	0.13	56.2	2600	No
Fluorene	3	29	10	0.063	2.71	90	No
Indeno(1,2,3-cd)pyrene	1	29	3	0.215	0.215	0.61	No
2-Methylnaphthalene	2	7	29	0.1	0.256	NA	Yes
Naphthalene	1	29	3	0.12	0.12	240	No
Phenanthrene	8	29	28	0.13	13.628	NA	Yes
Pyrene	10	29	34	0.4	54.6	100	No
PCBS							
PCB 1260	1	7	14	0.116	0.116	0.066	Yes
PESTICIDES							
ppDDT	1	7	14	0.02	0.02	1.9	No
Methoxychlor	1	7	14	0.3	0.3	330	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-3 Screening of Chemicals of Concern for the Nike Facility – Groundwater

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (µg/L)	Maximum Detected Value (µg/L)	EPA Region IX Residential PRG (µg/L)[a]	California MCL (µg/L)	Decison: Remains a COC?[b]
GROUNDWATER								
INORGANICS								
Aluminum	6	6	100	751	19200	37000	1000	Yes
Antimony	5	6	83	5.7	10.1	15	6	Yes
Arsenic	2	6	33	2.3	7.14	0.045	50	Yes
Barium	4	6	67	98	134	2600	1000	No
Chromium	6	6	100	18.5	229	0.16	50	Yes
Cobalt	1	6	17	90.4	90.4	2200	NA	No
Copper	5	6	83	5	178	1400	1000	No
Cyanide	1	6	17	6.28	6.28	6.2	200	Yes
Lead	1	6	17	3.4	3.4	4	15	No
Manganese	6	6	100	43	1030	1700	50	Yes
Mercury	1	6	17	8.6	8.6	3.7	2	Yes
Nickel	7	7	100	26.2	485	730	100	Yes
Silver	3	6	50	0.1	0.2	180	50	No
Vanadium	4	6	67	10	62.8	260	NA	No
Zinc	5	6	83	29	165	11000	5000	No
VOLATILE ORGANICS								
Chloroform	1	6	17	1.01	1.01	0.16	100	Yes
SEMIVOLATILE ORGANICS								
TPH-gas fraction	1	6	17	11	11	NA	10	No
n-nonane					6.6	770	NA	No
naphthalene					4.4	770	NA	No
WATER QUALITY PARAMETERS								
Chloride	6	6	100	8600	73100	NA	250000	No
Fluoride	1	6	17	946	946	2200	2000	No
Nitrate	5	5	100	363	9860	58000	10000	No
Nitrite, nitrate-non-specific	1	1	100	3900	3900	3700	1000	Yes
Sulfate	6	6	100	16900	55500	NA	250000	No
Total Dissolved Solids	6	6	100	274000	715000	NA	500000	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL (water only)

Table 15.1-4 Screening of Chemicals of Concern for the Crissy Field Study Area – Building 609

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
PESTICIDES							
ppDDE	1	3	33	0.008	0.008	1.3	No
ppDDT	2	3	67	0.014	0.131	1.3	No
Dieldrin	3	3	100	0.008	0.012	0.028	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-5 Screening of Chemicals of Concern for the Crissy Field Study Area -- Building 633

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Lead	5	10	50	61	616	840	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. Lead values are PSF lead soil screening values for recreational use

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-6 Screening of Chemicals of Concern for the Crissy Field Study Area -- Building 640/643

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Barium	6	6	100	83	330	5300	No
Cadmium	3	6	50	1.446	4.981	9	No
Lead	10	11	91	155	1429.601	840	Yes
Zinc	6	6	100	135.851	406.721	23000	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	3	3	100	3.403	6.2	32	No
TPH (assume gas fraction)	3	3	100	16.181	630.081	NA	No
n-hexane					378.0486	1030	No
naphthalene					252.0324	1210	No
TPH-diesel fraction	3	3	100	5.9	90	NA	No
n-nonane					58.5	4800	No
naphthalene					31.5	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Chrysene	1	3	33	0.088	0.088	6.1	No
Fluroanthene	1	3	33	0.161	0.161	2600	No
Phenanthrene	1	3	33	0.206	0.206	NA	Yes
SUBSURFACE SOIL							
INORGANICS							
Chromium	8	8	100	65	412	210	Yes
Cobalt	8	8	100	9.66	41.7	4600	No
Nickel	8	8	100	46.1	570	150	Yes
VOLATILE ORGANICS							
Toluene	1	8	13	0.195	0.195	790	No
Trichlorofluoromethane	1	8	13	0.1825	0.1825	380	No
SEMIVOLATILE ORGANICS							
Bis(2-ethyhexyl) phthalate	1	8	13	3.5	3.5	32	No
Butylbenzyl phthalate	2	8	25	0.047	0.18	930	No
TPH (assume gas fraction)	3	4	75	17.045	48.055	NA	No
n-hexane					28.833	1030	No
naphthalene					19.222	1210	No
TPH-diesel fraction	4	4	100	1	14	NA	No
n-nonane					9.1	4800	No
naphthalene					4.9	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Naphthalene	1	8	13	0.14	0.14	240	No
Phenanthrene	1	8	13	0.048	0.048	NA	Yes
Pyrene	1	8	13	0.069	0.069	100	No
PESTICIDES							
ppDDT	1	8	13	0.014	0.014	1.3	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for industrial use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-7 Screening of Chemicals of Concern for the Crissy Field Study Area -- Building 642

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
SEMIVOLATILE ORGANICS							
TPH-fuel oil fraction	1	4	25	99	99	NA	No
n-eicosane					64.35	165000	No
naphthalene					34.65	1900	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-8 Screening of Chemicals of Concern for the Crissy Field Study Area -- Fill Site 7

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Antimony	1	17	6	70.7	70.7	31	Yes
Barium	15	17	88	31.1	804	5300	No
Beryllium	11	17	65	0.617	1.57	0.14	Yes
Copper	15	17	88	15.7	143	2800	No
Manganese	11	17	65	332	2490	3200	No
Mercury	16	17	94	0.037	2.9	6.5	No
VOLATILE ORGANICS							
Trichlorofluoromethane	1	17	6	0.006	0.006	380	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	1	17	6	1.61	1.61	32	No
TPH-diesel fraction	16	16	100	0.006	380	NA	No
n-nonane					247	4800	No
naphthalene					133	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthene	1	30	3	0.312	0.312	110	No
Anthracene	1	30	3	0.2	0.2	5.7	No
Benzo(a)anthracene	6	30	20	0.047	5.76	0.61	Yes
Benzo(a)pyrene	8	30	27	0.042	5.63	0.061	Yes
Benzo(b)fluoranthene	8	30	27	0.038	9.54	0.61	Yes
Benzo(k)fluoranthene	3	17	18	0.049	12	0.61	Yes
Chrysene	3	30	10	0.713	7.47	6.1	Yes
Fluoranthene	4	30	13	0.4	5.98	2600	No
Phenanthrene	9	30	30	0.045	2.26	NA	Yes
Pyrene	14	30	47	0.038	5.52	100	No
PESTICIDES							
Aldrin	1	17	6	0.002	0.002	0.026	No
delta-BHC	1	17	6	0.004	0.004	NA	Yes
ppDDT	1	17	6	0.014	0.014	1.3	No
ppDDE	3	17	18	0.003	0.11	1.3	No
Dieldrin	1	17	6	0.002	0.002	0.028	No
alpha-Endosulfan	1	17	6	0.004	0.004	390	No
Endrin	1	17	6	0.007	0.007	20	No
Endrin aldehyde	1	17	6	3.15	3.15	NA	Yes
Methoxychlor	1	17	6	0.062	0.062	330	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-9 Screening of Chemicals of Concern for the Crissy Field Study Area -- Proposed Wetlands Restoration Area (page 1 of 2)

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	California MCL (µg/L)	Decison: Remains a COC?[b]
SOIL (0 to 15 feet)								
INORGANICS								
Antimony	1	37	3	55.4	55.4	31	—	No
Barium	21	37	57	7.29	804	5300	—	No
Beryllium	14	37	38	0.126	1.57	0.14	—	Yes
Copper	23	37	62	4.55	143	2800	—	No
Manganese	20	37	54	98.9	2490	3200	—	No
Mercury	24	37	65	0.032	2.9	6.5	—	No
VOLATILE ORGANICS								
Acetone	2	37	5	0.076	0.122	2100	—	No
Dibenzofuran	1	37	3	0.13	0.13	140	—	No
Methylene chloride	3	37	8	0.0027	0.0254	7.8	—	No
Methyl ethyl ketone	1	37	3	0.025	0.025	7100	—	No
1,1,2,2-Tetrachloroethane	1	37	3	0.005	0.005	0.45	—	No
Trichlorofluoromethane	2	37	5	0.006	0.008	380	—	No
SEMIVOLATILE ORGANICS								
Benzyl alcohol	2	37	5	0.11	0.11	20000	—	No
Bis(2-chloroethoxy) methane	4	37	11	0.163	0.306	NA	—	Yes
Di-n-butylphthalate	3	37	8	0.067	2.1	6500	—	No
TPH-diesel fraction	30	46	65	1	380	NA	—	
n-nonane					247	4800	—	No
naphthalene					133	1380	—	No
POLYNUCLEAR AROMATIC HYDROCARBONS								
Acenaphthalene	1	37	3	0.12	0.12	NA	—	No
Anthracene	3	37	8	0.058	0.36	5.7	—	No
Benzo(a)anthracene	6	37	16	0.047	0.38	0.61	—	No
Benzo(a)pyrene	8	37	22	0.042	0.35	0.061	—	Yes
Benzo(b)fluoranthene	5	37	14	0.038	0.2	0.61	—	No
Benzo(k)fluroanthene	5	37	14	0.049	0.35	0.61	—	No
Chrysene	1	37	3	0.41	0.41	6.1	—	No
Fluoranthene	2	37	5	0.38	0.68	2600	—	No
Fluorene	1	37	3	0.21	0.21	90	—	No
Indeno(1,2,3-cd)pyrene	1	37	3	0.076	0.076	0.61	—	No
2-Methynaphthalene	1	37	3	0.53	0.53	NA	—	No
Naphthalene	1	37	3	0.25	0.25	240	—	No
Phenanthrene	11	37	30	0.045	1.1	NA	—	Yes
Pyrene	13	37	35	0.038	0.74	100	—	No
PESTICIDES								
Aldrin	2	37	5	0.002	0.002	0.026	—	No
delta-BHC	1	37	3	0.004	0.004	NA	—	No
ppDDE	4	36	11	0.003	8.49	1.3	—	Yes
ppDDT	2	36	6	0.014	4.66	1.3	—	Yes
alpha-Endosulfan	1	37	3	0.004	0.004	390	—	No
GROUNDWATER								
INORGANICS								
Aluminum	13	22	59	249	17600	37000	1000	Yes
Antimony	7	22	32	1.37	11.9	15	6	Yes
Arsenic	19	22	86	2.98	169	0.045	50	Yes
Barium	21	22	95	6.84	878	2600	1000	No
Beryllium	5	22	23	1	9	0.016	4	Yes
Cadmium	6	22	27	3	55.2	18	5	Yes
Chromium	13	22	59	5.32	250	0.16	50	Yes
Cobalt	5	22	23	30	89	2200	NA	No
Copper	8	22	36	1.57	564	1400	1000	No
Cyanide	2	13	15	5.9	20.2	6.2	200	Yes

Table 15.1-9 Screening of Chemicals of Concern for the Crissy Field Study Area -- Proposed Wetlands Restoration Area (page 2 of 2)

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	California MCL (µg/L)	Decison: Remains a COC?[b]
Lead	20	37	54	1.52	2160	4	15	Yes
Manganese	18	22	82	55	2100	1700	50	Yes
Nickel	16	22	73	6.83	1520	730	100	Yes
Selenium	4	13	31	2.9	4.2	180	10	No
Silver	3	10	30	6	7	180	50	No
Vanadium	14	22	64	6	140	260	NA	No
Zinc	15	22	68	6	789	11000	5000	No
VOLATILE ORGANICS								
Chloroform	1	13	8	2.51	2.51	0.16	100	Yes
cis-1,2-Dichloroethylene	1	42	2	0.36	5.9	61	6	No
Trichloroethene	1	33	3	0.7	0.7	1.6	5	No
Vinyl chloride	2	34	6	0.8	3.4	0.02	0.5	Yes
SEMIVOLATILE ORGANICS								
Bis(2-ethylhexyl) phthalate	4	19	21	30.8	56.2	4.8	4	Yes
PESTICIDES								
2,4-D	3	13	23	1.1	4.9	370	NA	No
WATER QUALITY PARAMETERS								
Chloride	13	13	100	12000	1200000	NA	250000	Yes
Fluoride	4	13	31	1240	5300	2200	2000	Yes
Nitrate	5	6	83	578	4870	58000	10000	No
Nitrite, nitrate-non-specific	6	7	86	10.1	3000	3700	1000	Yes
Sulfate	10	13	77	6060	350000	NA	250000	Yes
Total Dissolved Solids	12	12	100	674000	3260000	NA	500000	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL (water only)

Table 15.1-10 Screening of Chemicals of Concern for the Crissy Field Study Area -- Sewer Lift Station

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Copper	4	4	100	15.2	165	2800	No
Cyanide	1	4	25	20.4	20.4	11	Yes
Lead	4	4	100	30.6	603	840	No
Mercury	2	4	50	0.13	0.168	6.5	No
Selenium	1	4	25	3.68	3.68	380	No
Zinc	4	4	100	54.2	139	23000	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. Lead values are PSF lead soil screening values for recreational use

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-11 Screening of Chemicals of Concern for the Building 900s Series Study Area -- Building 923 Area

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Arsenic	11	13	85	0.41	9.1	0.38	Yes
Barium	20	20	100	42	560	5300	No
Cadmium	7	20	35	1.1	87.303	9	Yes
Copper	20	20	100	3.3	760	2800	No
Lead	20	20	100	278.572	4700	840	Yes
Mercury	20	20	100	0.049	6.819	6.5	Yes
Zinc	20	20	100	100	1700	23000	No
VOLATILE ORGANICS							
Methylene chloride	7	9	78	5.528	10	7.8	Yes
Methylisobutyl ketone	1	9	11	5.939	5.939	770	No
Tetrachloroethylene	2	9	22	0.405	0.489	5.4	No
Trichlorofluoromethane	2	9	22	0.657	1.683	380	No
m-Xylene	1	9	11	0.595	0.595	320	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	4	9	44	1.654	8.353	32	No
1,4-Dichlorobenzene	1	9	11	7.347	7.347	3.6	Yes
TPH-diesel fraction	10	11	91	7.2	130	NA	No
n-nonane					84.5	4800	No
naphthalene					45.5	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Benzo(a)anthracene	2	9	22	0.05476	0.11	0.61	No
Chrysene	2	9	22	0.059	0.139	6.1	No
Fluoranthene	2	9	22	0.139	0.254	2600	No
Phenanthrene	3	9	33	0.0655	0.177	NA	Yes
Pyrene	2	9	22	0.10175	0.232	100	No
PCBS							
PCB 1254	2	9	22	0.422	3.53	0.066	Yes
PCB 1260	1	9	11	0.355	0.355	0.066	Yes
SUBSURFACE SOIL							
INORGANICS							
Antimony	2	6	33	8	10	31	No
SEMIVOLATILE ORGANICS							
Di-n-butylphthalate	1	1	100	3	3	6500	No
TPH-diesel fraction	5	7	71	4.8	90	NA	No
n-nonane					58.5	4800	No
naphthalene					31.5	1380	No
PESTICIDES							
Dieldrin	1	1	100	0.003	0.003	0.028	No
ppDDD	1	1	100	0.004	0.004	1.9	No
ppDDE	1	1	100	0.004	0.004	1.3	No
ppDDT	1	1	100	0.007	0.007	1.3	No

Note:
COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. Lead values are PSF lead soil screening values for industrial use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-12 Screening of Chemicals of Concern for the Building 900s Series Study Area -- Building 937

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Lead	2	2	100	196.9	370	840	No
SEMIVOLATILE ORGANICS							
TPH-diesel fraction	1	1	100	920	920	NA	No
n-nonane					598	4800	No
naphthalene					322	1380	No
SUBSURFACE SOIL							
INORGANICS							
Antimony	10	10	100	7	14	31	No
VOLATILE ORGANICS							
Acetone	3	30	10	4.215	8.882	2100	No
Chlorobenzene	4	30	13	0.1	8.517	65	No
Ethylbenzene	2	30	7	0.18	16	230	No
Methylene chloride	3	30	10	2.8	10	7.8	Yes
Toluene	5	30	17	0.0044	0.11	790	No
Xylenes, total combined	4	30	13	0.19	60	320	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	2	14	14	1.55	11.8	32	No
1,2-Dichlorobenzene	2	20	10	0.037	0.282	700	No
1,4-Dichlorobenzene	1	20	5	0.024	0.024	3.6	No
TPH-diesel fraction	5	10	50	2.7	6500	NA	Yes
n-nonane					4225	4800	No
naphthalene					2275	1380	Yes
TPH-gas fraction	5	16	31	73.5	3900	NA	Yes
n-hexane					2340	1030	Yes
naphthalene					1560	1210	Yes
POLYNUCLEAR AROMATIC HYDROCARBONS							
Chrysene	1	14	7	0.573	0.573	6.1	No
Fluoranthene	3	14	21	0.067	0.168	2600	No
Fluorene	1	14	7	0.169	0.169	90	No
2-Methylnaphthalene	1	14	7	1.668	1.668	NA	Yes
Naphthalene	1	14	7	7.391	7.391	240	No
Phenanthrene	3	14	21	0.107	0.288	NA	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for industrial use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-13 Screening of Chemicals of Concern for the Building 900s Series Study Area -- Building 949

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
INORGANICS							
Copper	4	4	100	77	145	2800	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-14 Screening of Chemicals of Concern for the Building 900s Series Study Area – Building 950/973/974

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Antimony	1	12	8	5.3	5.3	31	No
Arsenic	5	12	42	1.3	22	0.38	Yes
Barium	12	12	100	26.553	958.931	5300	No
Cadmium	4	12	33	2.39	9.888	9	Yes
Cyanide	1	12	8	0.282	0.282	11	No
Lead	18	25	72	41.7	4000	840	Yes
Mercury	10	12	83	0.031	1.558	6.5	No
Thallium	1	12	8	6.9	6.9	6.1	Yes
Zinc	12	12	100	72	842.44	23000	No
SEMIVOLATILE ORGANICS							
Bis(2-ethyhexyl) phthalate	1	3	33	3.55	3.55	32	No
TPH-diesel fraction	7	19	37	7.3	200	NA	No
n-nonane					130	4800	No
naphthalene					70	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Pyrene	1	3	33	0.349	0.349	100	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-15 Screening of Chemicals of Concern for the Building 900s Series Study Area -- Groundwater

COPC	No. of Detects	No. of Samples	Percent POD	Minimum Detected Value (µg/L)	Maximum Detected Value (µg/L)	EPA Region IX Residential PRG (µg/L)[a]	California MCL (µg/L)	Decison: Remains a COC?[b]
GROUNDWATER								
INORGANICS								
Aluminum	120	280	43	62	26100	37000	1000	Yes
Antimony	32	194	16	2	14.3	15	6	Yes
Arsenic	77	226	34	2.2	87	0.045	50	Yes
Barium	278	301	92	10	820	2600	1000	No
Beryllium	1	164	1	10	10	0.016	4	No
Cadmium	47	203	23	0.5	70	18	5	Yes
Chromium	278	308	90	1	3700	0.16	50	Yes
Cobalt	41	202	20	9	74	2200	NA	No
Copper	195	284	69	1	150	1400	1000	No
Lead	85	254	33	0.777	680	4	15	Yes
Manganese	276	302	91	10	5020	1700	50	Yes
Molybdenum	2	159	1	30	44	180	NA	No
Nickel	226	299	76	5	5300	730	100	Yes
Selenium	9	175	5	5.8	94	180	10	Yes
Silver	22	185	12	0.5	7.9	180	50	No
Thallium	2	197	1	1	1.1	2.9	2	No
Vanadium	64	221	29	4	110	260	NA	No
Zinc	84	232	36	13	3500	11000	5000	No
VOLATILE ORGANICS								
Acetone	1	153	1	50	50	610	NA	No
Benzene	6	158	4	2.4	110	0.39	1	No
Chlorobenzene	3	159	2	7.8	47	39	30	No
Chloroform	1	157	1	1.3	1.3	0.16	100	No
1,1-Dichloroethane	3	170	2	1.1	1.4	810	5	No
1,2-Dichloroethane	2	170	1	0.54	1.26	0.12	0.5	No
1,1-Dichloroethene	2	18	11	1.4	1.7	0.046	6	Yes
cis-1,2-Dichloroethene	25	62	40	0.5	540	61	6	Yes
trans-1,2-Dichloroethene	5	18	28	0.6	6	120	10	No
1,2-Dichloroethene (cis- and trans-)	42	113	37	0.51	750	55	6	Yes
total-1,2-Dichloroethene	4	44	9	0.51	600	55	6	Yes
Ethylbenzene	3	157	2	6.3	64	1300	680	No
Toluene	8	157	5	0.64	66	720	1000	No
Trichloroethene	14	170	8	0.7	109	1.6	5	Yes
1,2,4-Trimethylbenzene	2	44	5	160	240	NA	NA	No
1,3,5-Trimethylbenzene	1	44	2	45	45	NA	NA	No
Vinyl chloride	39	170	23	0.56	53	0.02	0.5	Yes
m/p-Xylenes	5	152	3	5.6	170	1400	1750	No
o-Xylene	5	152	3	7	120	1400	1750	No
SEMIVOLATILE ORGANICS								
Bis(2-ethylhexyl) phthalate	1	5	20	11.8	11.8	4.8	4	Yes
TPH-diesel fraction	66	158	42	50	150000	NA	50	Yes
n-nonane					97500	7000	NA	Yes
naphthalene					52500	880	NA	Yes
TPH-gas fraction	8	158	5	79	4600	NA	10	Yes
n-hexane					2760	770	NA	Yes
naphthalene					1840	770	NA	Yes
WATER QUALITY PARAMETERS								
Chloride	5	5	100	1	7000000	NA	250000	Yes
Nitrate	4	5	80	264	5300	58000	10000	No
Sulfate	5	5	100	48100	885000	NA	250000	Yes
Total Dissolved Solids	135	137	99	171000	25100000	NA	500000	Yes

Note:

COPC = chemical of potential concern
POD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the POD is greater than 5% and the maximum detected value is greater than the PRG or MCL (water only)

Table 15.1-16 Screening of Chemicals of Concern for the DEH Study Area -- Building 267/268/287

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Chromium	4	4	100	35.561	75.6	210	No
Copper	4	4	100	13.626	177	2800	No
Cyanide	1	5	20	0.312	0.312	11	No
Lead	4	5	80	60.1	350	840	No
Silver	2	4	50	1.11	6.42	380	No
Zinc	4	4	100	104	594	23000	No
VOLATILE ORGANICS							
Toluene	1	4	25	0.296	0.296	790	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	2	4	50	1.39	1.758	32	No
Phenol	1	4	25	1.35	1.35	39000	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthene	1	4	25	1.201	1.201	110	No
Benzo(a)anthracene	2	4	50	0.076	1.71	0.61	Yes
Chrysene	3	4	75	0.105	1.721	6.1	No
Fluoranthene	3	4	75	0.12	0.241	2600	No
Fluorene	1	4	25	1.51	1.51	90	No
Phenanthrene	2	4	50	0.224	1.732	NA	Yes
Pyrene	1	4	25	0.236	0.236	100	No
PESTICIDES							
Aldrin	3	14	21	0.0181	0.062	0.026	Yes
delta-BHC	2	14	14	0.00701	0.00803	NA	Yes
Chlordane	11	14	79	0.0144	12	0.34	Yes
ppDDD	1	14	7	0.00701	0.614	1.9	No
ppDDE	2	14	14	0.00802	0.00897	1.3	No
ppDDT	4	14	29	0.011	0.0699	1.3	No
Dieldrin	6	14	43	0.00899	2.362	0.028	Yes
Endrin	1	14	7	0.00897	0.00897	20	No
Heptachlor	2	14	14	0.0144	0.31	0.099	Yes
Heptachlor epoxide	1	14	7	0.012	0.012	0.049	No
Lindane	1	14	7	0.983	0.983	0.34	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-17 Screening of Chemicals of Concern for the DEH Study Area -- Building 269/293

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
INORGANICS							
Selenium	1	1	100	1.52	1.52	380	No
VOLATILE ORGANICS							
Methyl ethyl ketone	2	3	67	6.366	7.298	7100	No
1,1,1-Trichloroethane	1	3	33	0.37	0.37	1200	No
PESTICIDES							
Aldrin	3	6	50	0.03	0.28	0.026	Yes
alpha-BHC	1	5	20	0.041	0.041	0.071	No
delta-BHC	1	4	25	0.056	0.056	NA	Yes
Chlordane	3	6	50	57.2	80	0.34	Yes
ppDDD	3	6	50	0.338	1	1.9	No
ppDDT	3	6	50	1.505	5.45	1.3	Yes
Dieldrin	3	6	50	0.187	0.937	0.028	Yes
alpha-Endosulfan	3	6	50	0.398	0.532	390	No
Endrin	3	4	75	3.185	4.58	20	No
Heptachlor	3	6	50	0.196	0.766	0.099	Yes
Heptachlor epoxide	1	6	17	0.203	0.203	0.049	Yes
Lindane	3	6	50	0.035	0.219	0.34	No
Methoxychlor	2	6	33	0.04	0.064	330	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-18 Screening of Chemicals of Concern for the DEH Study Area – Building 283

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Cadmium	1	3	33	4.47	4.47	9	No
Copper	3	3	100	52.179	62.689	2800	No
Cyanide	1	3	33	0.349	0.349	11	No
Lead	3	3	100	28.677	1200	840	Yes
Manganese	3	3	100	362	1891.007	3200	No
Mercury	2	3	67	0.093	0.859	6.5	No
Zinc	3	3	100	85.278	1500	23000	No
VOLATILE ORGANICS							
2,4-Dichlorophenol	1	3	33	0.393	0.393	200	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	1	3	33	6.769	6.769	32	No
1,2-Dichlorobenzene	1	3	33	0.281	0.281	700	No
Dimethyl phthalate	1	3	33	0.119	0.119	100000	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthene	1	3	33	0.381	0.381	110	No
Benzo(a)anthracene	1	3	33	1.152	1.152	0.61	Yes
Chrysene	1	3	33	0.846	0.846	6.1	No
Fluoranthene	2	3	67	0.246	0.456	2600	No
Fluorene	1	3	33	0.452	0.452	90	No
2-Methylnaphthalene	1	3	33	0.385	0.385	NA	Yes
Phenanthrene	2	3	67	0.078	0.705	NA	Yes
Pyrene	1	3	33	0.587	0.587	100	No
PESTICIDES							
ppDDD	1	3	33	2.227	2.227	1.9	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-19 Screening of Chemicals of Concern for the DEH Study Area -- Building 286

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Antimony	2	2	100	0.129	0.214	31	No
Copper	4	4	100	86.5	384	2800	No
Manganese	4	4	100	1390	4650	3200	Yes
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	4	4	100	0.132	0.209	32	No
9H-Carbazole	1	4	25	2.21	2.21	22	No
Di-n-butylphthalate	4	4	100	0.0688	0.0919	6500	No
TPH-diesel fraction	1	4	25	23.6	23.6	NA	No
n-nonane					15.34	4800	No
naphthalene					8.26	1380	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-20 Screening of Chemicals of Concern for the Main Post Study Area -- Building 215

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (µg/L)	Maximum Detected Value (µg/L)	EPA Region IX Residential PRG (µg/L)	California MCL (µg/L)	Decison: Remains a COC?[a]
GROUNDWATER								
INORGANICS								
Aluminum	3	3	100	686	1070	37000	1000	Yes
Antimony	3	3	100	10.4	12.6	15	6	Yes
Arsenic	2	3	67	2.1	2.1	0.045	50	Yes
Barium	3	3	100	24	77	2600	1000	No
Beryllium	2	3	67	1	1	0.016	4	Yes
Chromium	3	3	100	20	36	0.16	50	Yes
Copper	3	3	100	7.04	7.23	1400	1000	No
Cyanide	2	3	67	5.3	6.3	6.2	200	Yes
Lead	2	3	67	1.7	5.38	4	15	Yes
Manganese	3	3	100	24	42	1700	50	No
Nickel	3	3	100	7.56	17	730	100	No
Selenium	1	3	33	2.42	2.42	180	10	No
Thallium	2	3	67	1.47	1.5	2.9	2	No
Vanadium	3	3	100	19	20	260	NA	No
Zinc	2	3	67	13	15	11000	5000	No
VOLATILE ORGANICS								
Chloroform	1	6	17	0.63	0.63	0.16	100	Yes
1,2-Dichloroethane	1	6	17	2.39	2.39	0.12	0.5	Yes
WATER QUALITY PARAMETERS								
Chloride	3	3	100	57900	332000	NA	250000	Yes
Fluoride	1	3	33	17.5	17.5	2200	4000	No
Nitrate	3	3	100	5110	6060	58000	10000	No
Total Dissolved Solids	2	3	67	448000	634000	NA	500000	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL

Table 15.1-21 Screening of Chemicals of Concern for the Main Post Study Area -- Building 228

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SUBSURFACE SOIL							
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	3	4	75	0.124	0.44	32	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-22 Screening of Chemicals of Concern for the Main Post Study Area -- Building 1057

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SEDIMENT (assessed as surface soil)							
INORGANICS							
Cadmium	1	1	100	6.14	6.14	9	No
Lead	1	1	100	436	436	840	No
Mercury	1	1	100	2.86	2.86	6.5	No
Zinc	1	1	100	2570	2570	23000	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	1	1	100	15.8	15.8	32	No
Butylbenzyl phthalate	1	1	100	28.4	28.4	930	No
Di-n-butylphthalate	1	1	100	12.3	12.3	6500	No
TPH-diesel fraction	1	1	100	12.2	12.2	NA	No
n-nonane					7.93	4800	No
naphthalene					4.27	1380	No
SUBSURFACE SOIL							
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	1	1	100	0.194	0.194	32	No
Di-n-butylphthalate	1	1	100	0.109	0.109	6500	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-23 Screening of Chemicals of Concern for the Main Post Study Area -- Building 1151/1152

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SUBSURFACE SOIL							
PCBS							
PCB 1260	3	3	100	2	11.284	0.066	Yes

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-24 Screening of Chemicals of Concern for the Main Post Study Area – Building 1167

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SUBSURFACE SOIL							
INORGANICS							
Lead	6	6	100	4.18	586	840	No
Mercury	4	6	67	0.134	1.04	6.5	No
Zinc	6	6	100	38	897	23000	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. Lead values are PSF lead soil screening values for industrial use

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-25 Screening of Chemicals of Concern for Fill Sites and Landfills – Fill Site 1

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	1	1	100	6.2	6.2	32	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-26 Screening of Chemicals of Concern for Fill Sites and Landfills -- Landfill 2

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Barium	5	5	100	78.8	1040	5300	No
Copper	5	5	100	12	202	2800	No
Lead	9	9	100	45.2	451	840	No
Zinc	5	5	100	72.6	626	23000	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Chrysene	1	5	20	0.954	0.954	6.1	No
Fluoranthene	2	5	40	0.0789	1.72	2600	No
Phenanthrene	1	5	20	2.77	2.77	NA	Yes
Pyrene	2	5	40	0.104	1.84	100	No
PESTICIDES							
ppDDT	3	5	60	1.15	3.04	1.3	Yes
MCPP	2	3	67	3.63	4.85	NA	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-27 Screening of Chemicals of Concern for Fill Sites and Landfills -- El Polin Spring

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (µg/L)	Maximum Detected Value (µg/L)	EPA Region IX Residential PRG (µg/L)	California MCL (µg/L)	Decison Remains a COC?[a]
SURFACE WATER								
INORGANICS								
Aluminum	2	3	67	467	484	37000	1000	No
Antimony	1	3	33	7.1	7.1	15	6	Yes
Barium	3	3	100	67	79.5	2600	1000	No
Beryllium	1	3	33	1	1	0.016	4	Yes
Cadmium	1	3	33	4	4	18	5	No
Chromium	3	3	100	27.5	44.8	0.16	50	Yes
Chromium VI	1	1	100	29.7	29.7	0.16	NA	Yes
Copper	1	3	33	59.6	59.6	1400	1000	No
Cyanide	1	3	33	9	9	6.2	200	Yes
Fluoride	2	4	50	656	806	2200	4000	No
Lead	2	3	67	3.4	4.34	4	15	Yes
Manganese	3	3	100	48.7	118	1700	50	Yes
Mercury	1	3	33	0.118	0.118	3.7	2	No
Nickel	2	3	67	32.8	36.3	730	100	No
Vanadium	1	3	33	7	7	260	NA	No
Zinc	1	3	33	57	57	11000	5000	No
WATER QUALITY PARAMETERS								
Chloride	4	4	100	63000	85300	NA	250000	No
Nitrate	1	1	100	187	187	58000	10000	No
Nitrite, nitrate-non-specific	2	2	100	1600	1900	3700	10000	No
Sulfate	4	4	100	13400	56000	NA	250000	No
Total Dissolved Solids	1	2	50	484000	484000	NA	500000	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL

Table 15.1-28 Screening of Chemicals of Concern for Fill Sites and Landfills – Transfer Station

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Aluminum	12	12	100	9636.618	55665.773	77000	No
Barium	12	12	100	24.95	543.854	5300	No
Lead	11	12	92	10.937	559.318	840	No
Mercury	5	12	42	0.187	4.269	6.5	No
Vanadium	12	12	100	61.755	141.432	540	No
VOLATILE ORGANICS							
Toluene	1	12	8	0.128	0.128	790	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	2	12	17	9.21	48.8	32	Yes
4-Methylphenol	3	12	25	0.647	1.7	330	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthene	1	12	8	0.133	0.133	110	No
Benzo(a)anthracene	2	12	17	0.178	2.86	0.61	Yes
Chrysene	1	12	8	2.89	2.89	6.1	No
Fluoranthene	1	12	8	0.196	0.196	2600	No
2-Methylnaphthalene	1	12	8	0.089	0.089	NA	Yes
Phenanthrene	3	12	25	0.104	22.8	NA	Yes
Pyrene	3	12	25	0.405	14.2	100	No
PESTICIDES							
Aldrin	1	8	13	0.005	0.005	0.026	No
Chlordane	3	12	25	0.085	0.113	0.34	No
ppDDD	4	8	50	0.004	0.013	1.9	No
ppDDE	1	9	11	0.007	0.007	1.3	No
ppDDT	6	12	50	0.005	0.035	1.3	No
Dieldrin	8	10	80	0.002	0.013	0.028	No
beta-Endosulfan	7	11	64	0.001	0.003	390	No
Endrin	1	11	9	0.008	0.008	20	No
Heptachlor	2	11	18	0.004	0.006	0.099	No
Heptachlor epoxide	1	5	20	0.002	0.002	0.049	No
Isodrin	1	8	13	0.004	0.004	NA	Yes
Lindane	1	12	8	0.01	0.01	0.34	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. Lead values are PSF lead soil screening values for recreational use

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-29 Screening of Chemicals of Concern for Fill Sites and Landfills -- Landfill 4

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
SEMIVOLATILE ORGANICS							
4-Methylphenol	1	1	100	0.626	0.626	330	No
PESTICIDES							
Aldrin	1	2	50	0.002	0.002	0.026	No
delta-BHC	1	2	50	0.027	0.027	NA	Yes
Chlordane	1	2	50	0.12	0.12	0.34	No
ppDDD	1	2	50	0.012	0.012	1.9	No
ppDDT	1	2	50	0.02	0.02	1.3	No
Dieldrin	1	2	50	0.011	0.011	0.028	No
alpha-endosulfan	1	2	50	0.011	0.011	390	No
beta-endosulfan	1	2	50	0.001	0.001	390	No
Heptachlor	1	2	50	0.006	0.006	0.099	No
Heptachlor epoxide	1	2	50	0.003	0.003	0.049	No
Isodrin	1	2	50	0.005	0.005	NA	Yes
Lindane	1	2	50	0.007	0.007	0.34	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-30 Screening of Chemicals of Concern for Fill Sites and Landfills – Fill Site 5

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
POLYNUCLEAR AROMATIC HYDROCARBONS							
Fluoranthene	1	1	100	0.08	0.08	2600	No
PESTICIDES							
ppDDD	1	1	100	0.006	0.006	1.9	No
ppDDT	1	1	100	0.01	0.01	1.3	No
Dieldrin	1	1	100	0.004	0.004	0.028	No
beta-Endosulfan	1	1	100	0.001	0.001	390	No
Heptachlor	1	1	100	0.002	0.002	0.099	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-31 Screening of Chemicals of Concern for Fill Sites and Landfills – Fill Site 6

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	California MCL (µg/L)	Decison: Remains a COC?[b]
SUBSURFACE SOIL								
VOLATILE ORGANICS								
1,1,1-Trichloroethane	1	5	20	0.419	0.419	1200	—	No
Trichlorofluoromethane	2	17	12	0.505	0.654	380	—	No
GROUNDWATER				(µg/L)	(µg/L)	(µg/L)		
INORGANICS								
Aluminum	6	6	100	929	214000	37000	1000	Yes
Antimony	3	6	50	1.16	1.68	15	6	No
Arsenic	5	6	83	2	51	0.045	50	Yes
Barium	6	6	100	29	1100	2600	1000	Yes
Beryllium	2	6	33	3	5	0.016	4	Yes
Chromium	6	6	100	16	1910	0.16	50	Yes
Cobalt	5	6	83	22	416	2200	NA	No
Copper	5	6	83	12.3	292	1400	1000	No
Cyanide	2	6	33	5.6	5.8	6.2	200	No
Lead	3	6	50	8.34	56.4	4	15	Yes
Manganese	6	6	100	59	5050	1700	50	Yes
Nickel	6	6	100	38.3	2260	730	100	Yes
Vanadium	6	6	100	17	1290	260	NA	Yes
Zinc	6	6	100	12	820	11000	5000	No
SEMIVOLATILE ORGANICS								
TPH-diesel fraction	2	6	33	84	250	NA	50	No
n-nonane					162.5	7000	NA	No
naphthalene					87.5	880	NA	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL (water only)

Table 15.1-32 Screening of Chemicals of Concern for Fill Sites and Landfills – Landfill E

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SURFACE SOIL							
INORGANICS							
Mercury	5	6	83	0.029	0.574	6.5	No
Silver	2	6	33	1.38	3230	380	Yes
Zinc	6	6	100	43	400	23000	No
VOLATILE ORGANICS							
Toluene	1	6	17	0.007	0.007	790	No
SEMIVOLATILE ORGANICS							
TPH-diesel fraction	1	6	17	6	6	NA	No
n-nonane					3.9	4800	No
naphthalene					2.1	1380	No
PESTICIDES							
delta-BHC	1	5	20	0.003	0.003	NA	Yes
ppDDE	1	6	17	1.05	1.05	1.3	No
ppDDT	2	6	33	0.537	2.41	1.3	Yes
Endrin aldehyde	1	5	20	0.005	0.005	NA	Yes
Lindane	1	5	20	0.003	0.003	0.34	No
MCPP	2	3	67	2.09	4.84	NA	Yes

Note:
COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-33 Screening of Chemicals of Concern for Miscellaneous Sites -- Building 662

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	California MCL (µg/L)	Decison Remains a COC?[b]
SUBSURFACE SOIL								
INORGANICS								
Lead	3	10	30	91.949	391.545	840	—	No
Zinc	3	3	100	60.124	749.185	23000	—	No
SEMIVOLATILE ORGANICS								
Bis(2-ethylhexyl) phthalate	2	3	67	1.545	2.228	32	—	No
POLYNUCLEAR AROMATIC HYDROCARBONS								
Chrysene	1	8	13	0.201	0.201	6.1	—	No
Fluoranthene	1	8	13	0.306	0.306	2600	—	No
Pyrene	1	8	13	0.48	0.48	100	—	No
GROUNDWATER				(µg/L)	(µg/L)	(µg/L)		
INORGANICS								
Lead	1	1	100	6	6	4	15	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL (water only)

Table 15.1-34 Screening of Chemicals of Concern for Miscellaneous Sites – Building 680

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
PCBS							
PCB 1260	3	3	100	6.214	13.593	0.066	Yes
SUBSURFACE SOIL							
PCBS							
PCB 1260	4	5	80	0.72	5.07	0.07	Yes

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-35 Screening of Chemicals of Concern for Miscellaneous Sites -- Building 1244

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SUBSURFACE SOIL							
INORGANICS							
Lead	2	5	40	189	350	840	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

a. Lead values are PSF lead soil screening values for industrial use

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-36 Screening of Chemicals of Concern for Miscellaneous Sites -- Building 1351

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Lead	2	3	67	231	473	840	No
SUBSURFACE SOIL							
INORGANICS							
Barium	14	14	100	25.059	224	5300	No
Cadmium	1	14	7	5.01	17.6	9	Yes
Copper	14	14	100	5.954	207	2800	No
Lead	12	27	44	13.935	321	400	No
Manganese	14	14	100	134.139	709.405	3200	No
Mercury	6	14	43	0.049	0.423	6.5	No
Zinc	14	14	100	29.46	499	23000	No
VOLATILE ORGANICS							
Toluene	4	14	29	0.2325	0.525	790	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	4	14	29	1.148	44.71	32	Yes
Methyl ethyl ketone	1	14	7	6.3	6.3	7100	No
4-Methylphenol	1	14	7	14.187	14.187	330	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Chrysene	1	14	7	0.131	0.131	6.1	No
Fluoranthene	2	14	14	0.062	0.074	2600	No
Pyrene	2	14	14	0.154	0.836	100	No

Note:
COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. Lead values are PSF lead soil screening values for industrial use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-37 Screening of Chemicals of Concern for Miscellaneous Sites -- FPCGS

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Lead	8	8	100	50.407	387.295	840	No
Zinc	8	8	100	73.108	763.125	23000	No
VOLATILE ORGANICS							
Toluene	6	8	75	0.306	0.734	790	No
Trichlorofluoromethane	1	8	13	0.309	0.309	382	No
m-Xylene	1	7	14	0.721	0.721	320	No
Xylenes	1	8	13	1.079	1.079	320	No
SEMIVOLATILE ORGANICS							
TPH-gas fraction	8	9	89	120.968	22675.738	NA	Yes
n-hexane					13605.4428	1030	Yes
naphthalene					9070.2952	1210	Yes
POLYNUCLEAR AROMATIC HYDROCARBONS							
Benzo(a)anthracene	3	8	38	0.55	13.19	0.61	Yes
Benzo(b)fluoranthene	1	8	13	29.073	29.073	0.61	Yes
Benzo(k)fluoranthene	1	8	13	29.624	29.624	0.61	Yes
Benzo(g,h,i)perylene	1	8	13	10.428	10.428	NA	Yes
Chrysene	2	8	25	0.92	20.346	6.1	Yes
Dibenzo(a,h)anthracene	1	8	13	4.287	4.287	0.061	Yes
Fluoranthene	6	8	75	0.449	53.686	2600	No
Fluorene	1	8	13	8.167	8.167	90	No
Indeno(1,2,3-cd)pyrene	1	8	13	0.31	0.31	0.61	No
Phenanthrene	6	8	75	0.44	49.929	NA	Yes
Pyrene	4	8	50	1.3	45.337	100	No
PESTICIDES							
ppDDT	1	8	13	0.05	0.05	1.3	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-38 Screening of Chemicals of Concern for Miscellaneous Sites -- Lobos Creek

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value	Maximum Detected Value	EPA Region IX Residential PRG	California MCL	Decison: Remains a COC?[a]
SURFACE WATER				(µg/L)	(µg/L)	(µg/L)		
INORGANICS								
Barium	6	6	100	7.15	22.6	2600	1000	No
Boron	1	5	20	355.9235	355.9235	3300	NA	No
Lead	1	6	17	8.551	8.551	4	15	Yes
Manganese	4	6	67	55.511	236	17000	50	Yes
Vanadium	1	6	17	13	13	260	NA	No
SEMIVOLATILE ORGANICS								
Bis(2-ethylhexyl) phthalate	1	6	17	1.1	1.1	4.8	4	No
WATER QUALITY PARAMETERS								
Chloride	6	6	100	48777.3125	75962.531	NA	250000	No
Fluoride	5	6	83	481.977	1026.78	2200	2000	No
Nitrite, nitrate-non-specific	4	4	100	2800	14762.387	3700	1000	Yes
Sulfate	5	5	100	53446.262	63960.281	NA	250000	No
Total Dissolved Solids	6	6	100	340000	380000	NA	500000	No
SEDIMENT				(mg/kg)	(mg/kg)	(mg/kg)		
INORGANICS								
Arsenic	1	3	33	14.619	14.619	0.38	---	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL

Table 15.1-39 Screening of Chemicals of Concern for Miscellaneous Sites -- Drinking Water Source

COPC	Lobos Creek Max (µg/L)	Well 13 Max (µg/L)	Drinking Water Concentration (µg/L)[a]	EPA Region IX Residential PRG (µg/L)	California MCL (µg/L)	Decison: Remains COC?[b]
DRINKING WATER						
INORGANICS						
Barium	22.6	20.5	22.39	2600	1000	No
Boron	355.9235	ND	355.9235	3300	NA	No
Lead	8.551	2.6	7.9559	4	15	Yes
Manganese	236	4.5	212.85	1700	50	Yes
Vanadium	13	ND	13	260	NA	No
SEMIVOLATILE ORGANICS						
Bis(2-ethylhexyl) phthalate	1.1	ND	1.1	4.8	4	No
WATER QUALITY PARAMETERS						
Chloride	75962.531	44000	72766.2779	NA	250000	No
Fluoride	1026.78	ND	1026.78	2200	4000	No
Nitrite/nitrate-non-specific[c]	14762.387	129	13299.0483	58000	10000	Yes
Sulfate	63960.281	ND	63960.281	NA	250000	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels (water only)
NA = not available

a. Drinking water concentration is 90% Lobos Creek maximum concentration plus 10% Well 13 maximum concentration
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL
c. Assumed nitrate

Table 15.1-40 Screening of Chemicals of Concern for Miscellaneous Sites -- Mountain Lake

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value	Maximum Detected Value	EPA Region IX Residential PRG[a]	California MCL	Decison: Remains a COC?[b]
SURFACE WATER				(µg/L)	(µg/L)	(µg/L)		
INORGANICS								
Barium	2	2	100	47.4	56.4	2600	1000	No
Cyanide	1	1	100	8.137	8.137	6.2	200	Yes
Lead	1	2	50	9.086	9.086	4	15	Yes
Manganese	2	2	100	306	377.756	1700	50	No
Vanadium	1	2	50	13	13	260	NA	No
SEMIVOLATILE ORGANICS								
Bis(2-ethylhexyl) phthalate	1	2	50	1.3	1.3	4.8	4	No
TPH-diesel fraction	2	4	50	51	60	NA	50	No
n-nonane					39	7000	NA	No
naphthalene					21	880	NA	No
TPH-gas fraction	1	1	100	1040	1040	NA	10	No
n-hexane					624	770	NA	No
naphthalene					416	770	NA	No
PESTICIDES								
Heptachlor	1	2	50	0.009	0.009	0.015	0.01	No
WATER QUALITY PARAMETERS								
Chloride	2	2	100	86000	142039.531	2200	2000	Yes
Fluoride	1	2	50	877.446	877.446	2200	2000	No
Nitrite, nitrate-non-specific	2	2	100	372.093	460	3700	1000	No
Sulfate	2	2	100	40900	44100.469	NA	250000	Yes
Total Dissolved Solids	2	2	100	392000	620000	NA	500000	Yes
SEDIMENT				(mg/kg)	(mg/kg)	(mg/kg)		
PESTICIDES								
Aldrin	1	4	25	0.003	0.003	0.026	—	No
Lindane	1	5	20	0.003	0.003	0.34	—	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL

Table 15.1-41 Screening of Chemicals of Concern for the Baker Beach Study Area -- Disturbed Area 1a

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison Remains a COC?[b]
SURFACE SOIL							
SEMIVOLATILE ORGANICS							
TPH-diesel fraction	2	2	100	5	48	NA	No
n-nonane					31.2	4800	No
naphthalene					16.8	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthylene	1	2	50	0.3	0.3	NA	Yes
Benzo(a)anthracene	1	2	50	0.6	0.6	0.61	No
Benzo(a)pyrene	1	2	50	2	2	0.061	Yes
Benzo(b)fluoranthene	1	2	50	2	2	0.61	Yes
Benzo(g,h,i)perylene	1	2	50	3	3	NA	Yes
Fluoranthene	1	2	50	2	2	90	No
Indeno(1,2,3-cd)pyrene	1	2	50	2	2	0.61	Yes
Phenanthrene	2	2	100	0.051	1	NA	Yes
Pyrene	2	2	100	0.053	2	100	No
PESTICIDES							
delta-BHC	1	2	50	0.007	0.007	NA	Yes
Lindane	1	2	50	0.004	0.004	0.34	No

Note:
COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-42 Screening of Chemicals of Concern for the Baker Beach Study Area -- Disturbed Area 1

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	California MCL (µg/L)	Decison: Remains a COC?[c]
SURFACE SOIL								
INORGANICS								
Antimony	3	5	60	85.4	100	31	—	Yes
Lead	14	14	100	9.04	2050	840	—	Yes
Selenium	5	5	100	0.446	2.37	380	—	No
Zinc	12	14	86	101	3590	23000	—	No
VOLATILE ORGANICS								
Methylene chloride	2	5	40	0.11	0.2	7.8	—	No
Trichlorofluoromethane	2	5	40	0.004	0.02	380	—	No
SEMIVOLATILE ORGANICS								
Bis(2-ethyhexyl) phthalate	1	5	20	0.62	0.62	32	—	No
Di-n-butylphthalate	2	5	40	1.4	1.6	6500	—	No
TPH-diesel fraction	5	5	100	9	28	NA	—	No
n-nonane					18.2	4800	—	No
naphthalene					9.8	1380	—	No
POLYNUCLEAR AROMATIC HYDROCARBONS								
Fluorene	1	5	20	0.17	0.17	90	—	No
2-Methynaphthalene	1	5	20	0.039	0.039	NA	—	Yes
Phenanthrene	2	5	40	0.056	0.082	NA	—	Yes
Pyrene	3	5	60	0.039	0.12	100	—	No
PESTICIDES								
ppDDD	2	5	40	0.005	0.015	1.9	—	No
ppDDE	3	5	60	0.006	0.028	1.3	—	No
ppDDT	3	5	60	0.052	0.17	1.3	—	No
Dieldrin	2	5	40	0.022	0.059	0.028	—	Yes
Endrin	1	5	20	0.005	0.005	20	—	No
Endrin aldehyde	1	5	20	0.006	0.006	20	—	No
Lindane	2	5	40	0.003	0.005	0.34	—	No
SURFACE WATER				(µg/L)	(µg/L)	(µg/L)		
INORGANICS								
Barium	1	1	100	101	101	2600	1000	No
Manganese	1	1	100	187	187	1700	50	Yes
Vanadium	1	1	100	11.8	11.8	260	NA	No
Zinc	1	1	100	29.3	29.3	11000	5000	No
WATER QUALITY PARAMETERS								
Chloride	1	1	100	200000	200000	NA	250000	No
Nitrite, nitrate-non-specific	1	1	100	199	199	3700	1000	No
Sulfate	1	1	100	78000	78000	NA	250000	No
Total Dissolved Solids	1	1	100	973000	973000	NA	500000	Yes
SEDIMENT								
INORGANICS								
Barium	1	1	100	1290	1290	5300	—	No
Copper	1	1	100	387	387	2800	—	No
Lead	1	1	100	3700	3700	840	—	Yes
Silver	1	1	100	6.09	6.09	380	—	No
Zinc	1	1	100	3300	3300	23000	—	No
SEMIVOLATILE ORGANICS								
TPH-diesel fraction	1	1	100	6	6	NA	—	No
n-nonane					3.9	4800	—	No
naphthalene					2.1	1380	—	No
PCBS								
PCB 1260	1	1	100	0.126	0.126	0.066	—	Yes
PESTICIDES								
ppDDE	1	1	100	0.006	0.006	1.3	—	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
MCL = maximum contaminant levels
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. Lead values are PSF lead soil screening values for recreational use
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG or MCL

Table 15.1-43 Screening of Chemicals of Concern for the Baker Beach Study Area – Disturbed Area 2

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison Remains a COC?[b]
SURFACE SOIL							
VOLATILE ORGANICS							
Benzene	1	3	33	0.002	0.002	0.63	No
Trichlorofluoromethane	1	3	33	0.005	0.005	380	No
SEMIVOLATILE ORGANICS							
TPH-diesel fraction	3	3	100	11	58	NA	No
n-nonane					37.7	4800	No
naphthalene					20.3	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Acenaphthylene	1	3	33	0.1	0.1	NA	Yes
Anthracene	2	3	67	0.061	0.081	5.7	No
Benzo(a)anthracene	2	3	67	0.22	0.52	0.61	No
Benzo(a)pyrene	2	3	67	0.11	0.54	0.061	Yes
Benzo(b)fluoranthene	2	3	67	0.14	0.47	0.61	No
Benzo(k)fluoranthene	2	3	67	0.18	0.38	0.61	No
Chrysene	1	3	33	0.47	0.47	6.1	No
Fluoranthene	2	3	67	0.4	0.56	2600	No
Fluorene	1	3	33	0.051	0.051	90	No
Indeno(1,2,3-cd)pyrene	1	3	33	0.09	0.09	0.61	No
Naphthalene	2	3	67	0.046	0.051	240	No
Phenanthrene	2	3	67	0.15	0.44	NA	Yes
Pyrene	1	3	33	0.91	0.91	100	No
PESTICIDES							
alpha-BHC	1	3	33	0.004	0.004	0.071	No
Endrin	1	3	33	0.006	0.006	20	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-44 Screening of Chemicals of Concern for the Baker Beach Study Area -- Disturbed Area 3

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a,b]	Decison: Remains a COC?[c]
SURFACE SOIL							
INORGANICS							
Antimony	2	5	40	51	156	31	Yes
Chromium	5	5	100	39.2	1590	210	Yes
Cobalt	4	5	80	20.5	279	4600	No
Lead	8	9	89	6	350	840	No
Nickel	5	5	100	24.6	4300	150	Yes
Zinc	8	9	89	24.6	144	23000	No
SEMIVOLATILE ORGANICS							
Bis(2-ethylhexyl) phthalate	1	5	20	1.7	1.7	32	No
TPH-diesel fraction	5	5	100	6	50	NA	No
n-nonane					32.5	4800	No
naphthalene					17.5	1380	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Benzo(a)anthracene	1	5	20	0.06	0.06	0.61	No
Fluoranthene	1	5	20	0.2	0.2	2600	No
Phenanthrene	2	5	40	0.21	0.3	NA	Yes
Pyrene	3	5	60	0.06	0.6	100	No
PESTICIDES							
ppDDD	4	7	57	0.007	0.021	1.9	No
ppDDE	4	7	57	0.013	0.02	1.3	No
ppDDT	3	5	60	0.008	0.047	1.3	No
Dieldrin	2	5	40	0.01	0.016	0.028	No
Heptachlor epoxide	1	5	20	0.004	0.004	0.049	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. Lead values are PSF lead soil screening values for recreational use
b. TPH values are risk-based levels developed in the PSF FPALDR
c. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-45 Screening of Chemicals of Concern for the Baker Beach Study Area -- Disturbed Area 4

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison Remains a COC?[b]
SURFACE SOIL							
SEMIVOLATILE ORGANICS							
TPH-diesel fraction	5	5	100	11	80	NA	No
n-nonane					52	4800	No
naphthalene					28	1380	No
PESTICIDES							
Chlordane	1	5	20	0.4	0.4	0.34	Yes
ppDDT	2	5	40	0.006	0.06	1.3	No

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR
b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-46 Screening of Chemicals of Concern for Miscellaneous Follow-on Sites -- Building 1245

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SUBSURFACE SOIL							
SEMIVOLATILE ORGANICS							
Di-n-butyl phthalate	3	4	75	0.0787	0.0909	6500	No
POLYNUCLEAR AROMTIC HYDROCARBONS							
Fluoranthene	2	4	50	0.075	0.0873	2600	No
Pyrene	2	4	50	0.0643	0.0654	100	No
PESTICIDES							
Dieldrin	3	4	75	0.0021	0.0071	0.028	No
ppDDE	3	4	75	0.0044	0.013	1.3	No
ppDDT	3	4	75	0.0083	0.0773	1.3	No

Note:
COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available
a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-47 Screening of Chemicals of Concern for Miscellaneous Follow-on Sites -- Building 1369

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SUBSURFACE SOIL							
INORGANICS							
Lead	2	3	67	291	365	840	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. Lead values are PSF lead soil screening values for industrial use

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-48 Screening of Chemicals of Concern for Miscellaneous Follow-on Sites -- Building 1388

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)[a]	Decison: Remains a COC?[b]
SUBSURFACE SOIL							
SEMIVOLATILE ORGANICS							
TPH-gas fraction	1	18	6	100	100	NA	No
n-hexane					60	1030	No
naphthalene					40	1210	No

Note:

COPC = chemical of potential concern

FOD = frequency of detection

PRG = preliminary remediation goals

NA = not available

a. TPH values are risk-based levels developed in the PSF FPALDR

b. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-49 Screening of Chemicals of Concern for Miscellaneous Follow-on Sites – EOM

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (mg/kg)	Maximum Detected Value (mg/kg)	EPA Region IX Residential PRG (mg/kg)	Decison: Remains a COC?[a]
SURFACE SOIL							
VOLATILE ORGANICS							
Methylene chloride	1	5	20	0.0062	0.0062	7.8	No
SEMIVOLATILE ORGANICS							
Bis(2-chloroethoxy) methane	4	5	80	0.163	0.569	NA	Yes
Bis(2-ethylhexyl) phthalate	1	5	20	0.404	0.404	32	No
Di-n-butylphthalate	2	5	40	0.067	0.0793	6500	No
POLYNUCLEAR AROMATIC HYDROCARBONS							
Fluoranthene	1	5	20	0.087	0.087	2600	No
Pyrene	1	5	20	0.118	0.118	100	No
PESTICIDES							
ppDDE	1	3	33	8.49	8.49	1.3	Yes
ppDDT	1	3	33	4.66	4.66	1.3	Yes

Note:

COPC = chemical of potential concern
FOD = frequency of detection
PRG = preliminary remediation goals
NA = not available

a. COPCs are considered COCs if the FOD is greater than 5% and the maximum detected value is greater than the PRG

Table 15.1-52 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Nike Facility -- Groundwater

COC	Maximum Detected Value (µg/L)	95 Percent UCL (µg/L)	Exposure Point Concentration (mg/L)
GROUNDWATER			
INORGANICS			
Aluminum	19200	116402.58	19.2
Antimony	10.1	21.12	0.0101
Arsenic	7.14	5.31	0.00531408
Chromium	229	632.73	0.229
Chromium VI			0.229
Cyanide	6.28	8.01	0.00628
Manganese	1030	3793.94	1.03
Mercury	8.6	31.40	0.0086
Nickel	485	2432.68	0.485
VOLATILE ORGANICS			
Chloroform	1.01	1.49	0.00101
WATER QUALITY PARAMETERS			
Nitrite, nitrate-non-specific	3900	NA	3.9
Total Dissolved Solids	715000	838405.16	715

a. Total chromium in water is assumed to be chromium VI.

Table 15.1-53 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Crissy Field Study Area -- Building 640/643

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Lead	1429.601	3517.742136	1429.601
POLYNUCLEAR AROMATIC HYDROCARBONS			
Phenanthrene	0.206	NA	0.206
SUBSURFACE SOIL			
INORGANICS			
Chromium[a]	412	296.0661792	296.0661792
Chromium III			296.0365726
Chromium VI			0.029606618
Nickel	570	617.6047257	570
POLYNUCLEAR AROMATIC HYDROCARBONS			
Phenanthrene	0.048	0.027665232	0.027665232

a. Total chromium in soil is assumed to be 99.99% chromium III and 0.01% chromium VI.

Table 15.1-54 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Crissy Field Study Area -- Fill Site 7

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Beryllium	1.57	1.018715645	1.018715645
POLYNUCLEAR AROMATIC HYDROCARBONS			
Benzo(a)anthracene	5.76	0.795754855	0.795754855
Benzo(a)pyrene	5.63	0.868815115	0.868815115
Benzo(b)fluoranthene	9.54	0.872794326	0.872794326
Benzo(k)fluoranthene	12	0.361568852	0.361568852
Chrysene	7.47	0.608713776	0.608713776
Phenanthrene	2.26	0.555837193	0.555837193
PESTICIDES			
Aldrin	0.002	0.003550225	0.002
delta-BHC	0.004	0.003293372	0.003293372
Endrin aldehyde	3.15	0.129520797	0.129520797

Table 15.1-55 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Crissy Field Study Area – Proposed Wetlands Restoration Area

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SOIL (0 to 15 feet)			
INORGANICS			
Beryllium	1.57	0.6452	0.6452
SEMIVOLATILE ORGANICS			
Bis(2-chloroethoxy) methane	0.306	0.0506	0.0506
POLYNUCLEAR AROMATIC HYDROCARBONS			
Benzo(a)pyrene	0.35	0.0476	0.0476
Phenanthrene	1.1	0.0996	0.0996
PESTICIDES			
ppDDE	8.49	0.0448	0.0448
ppDDT	4.66	0.0292	0.0292
GROUNDWATER	µg/L	µg/L	mg/L
INORGANICS			
Aluminum	17600	323193.1629	17.6
Antimony	11.9	29.61317759	0.0119
Arsenic	169	44.66398243	0.044663982
Beryllium	9	3.297087462	0.003297087
Cadmium	55.2	7.475733011	0.007475733
Chromium[a]	250	2256.816097	0.25
Chromium VI			0.25
Cyanide	20.2	6.761270021	0.00676127
Lead	2160	87.57311961	0.08757312
Manganese	2100	1354.801318	1.354801318
Nickel	1520	2283.322808	1.52
VOLATILE ORGANICS			
Chloroform	2.51	3.981200858	0.00251
Vinyl chloride	3.4	0.408015517	0.000408016
SEMIVOLATILE ORGANICS			
Bis(2-ethylhexyl) phthalate	56.2	35.84745986	0.03584746
WATER QUALITY PARAMETERS			
Chloride	1200000	4147709.614	1200
Fluorine	5300	1883514.189	5.3
Nitrite, nitrate-non-specific	3000	197209.0594	3
Sulfate	350000	222975.2583	222.9752583
Total Dissolved Solids	3260000	2388598.795	2388.598795

a. Total chromium is assumed to be chromium VI.

Table 15.1-56 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Crissy Field Study Area -- Sewer Lift Station

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Cyanide	20.4	NA	20.4

Table 15.1-57 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Building 900s Series Study Area -- Building 923 Area

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Arsenic	9.1	15.37897319	9.1
Cadmium	87.303	32.7245096	32.7245096
Lead	4700	1471.843433	1471.843433
Mercury	6.819	0.652223005	0.652223005
VOLATILE ORGANICS			
Methylene chloride	10	22.80600851	10
SEMIVOLATILE ORGANICS			
1,4-Dichlorobenzene	7.347	30.45492934	7.347
POLYNUCLEAR AROMATIC HYDROCARBONS			
Phenanthrene	0.177	0.340103651	0.177
PCBS			
PCB 1254	3.53	278572.1241	3.53
PCB 1260	0.355	2144.293091	0.355

Table 15.1-58 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Building 900s Series Study Area -- Building 937

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SUBSURFACE SOIL			
VOLATILE ORGANICS			
Methylene chloride	10	25.91580949	10
SEMIVOLATILE ORGANICS			
TPH-diesel fraction	6500	23360648992	6500
n-nonane	4225	15184421845	4225
naphthalene	2275	8176227147	2275
TPH-gas fraction	3900	565898.5183	3900
n-hexane	2340	339539.111	2340
naphthalene	1560	226359.4073	1560
POLYNUCLEAR AROMATIC HYDROCARBONS			
2-Methylnaphthalene	1.668	0.229769032	0.229769032
Phenanthrene	0.288	0.167003754	0.167003754

Table 15.1-59 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Building 900s Series Study Area -- Building 950/973/974

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Arsenic	22	7.024624146	7.024624146
Cadmium	9.888	17.09517082	9.888
Lead	4000	3551.128573	3551.128573
Thallium	6.9	25.35718953	6.9

Table 15.1-60 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Building 900s Series Study Area -- Groundwater

COC	Maximum Detected Value (µg/L)	95 Percent UCL (µg/L)	Exposure Point Concentration (mg/L)
GROUNDWATER			
INORGANICS			
Aluminum	26100	1267.217133	1.267217133
Antimony	14.3	4.309810722	0.004309811
Arsenic	87	6.028842089	0.006028842
Cadmium	70	0.730924018	0.000730924
Chromium[a]	3700	29.79596104	0.029795961
Chromium VI			0.029795961
Lead	680	9.825069476	0.009825069
Manganese	5020	1121.982621	1.121982621
Nickel	5300	38.67225378	0.038672254
Selenium	94	4.017450015	0.00401745
VOLATILE ORGANICS			
1,1-Dichloroethene	1.7	0.723093212	0.000723093
cis-1,2-Dichloroethene	540	18.46844625	0.018468446
1,2-Dichloroethene (cis- and trans-)[b]	750	3.184848514	0.003184849
total-1,2-Dichloroethene[b]	600	2.62572148	0.002625721
Trichloroethene	109	0.831480127	0.00083148
Vinyl chloride	53	1.643468146	0.001643468
SEMIVOLATILE ORGANICS			
Bis(2-ethylhexyl) phthalate	11.8	36.27944182	0.0118
TPH-diesel fraction	150000	200.6182521	0.200618252
n-nonane	97500	0.130401864	0.000130402
naphthalene	52500	0.070216388	7.02164E-05
TPH-gas fraction	4600	52.36140407	0.052361404
n-hexane	2760	0.031416842	3.14168E-05
naphthalene	1840	0.020944562	2.09446E-05
WATER QUALITY PARAMETERS			
Chloride	7000000	4.76186E+11	7000
Sulfate	885000	55122040.7	885
Total Dissolved Solids	25100000	6416565.838	6416.565838

a. Total chromium is assumed to be chromium VI.
b. The exposure point concentration in the risk assessment was the larger value of these two COCs

Table 15.1-61 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the DEH Study Area -- Building 267/268/287

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
POLYNUCLEAR AROMATIC HYDROCARBONS			
Benzo(a)anthracene	1.71	NA	1.71
Phenanthrene	1.732	NA	1.732
PESTICIDES			
Aldrin	0.062	1.37185394	0.062
delta-BHC	0.00803	0.004864235	0.004864235
Chlordane	12	65.6603131	12
Dieldrin	2.362	2.988417924	2.362
Heptachlor	0.31	1.042656311	0.31
Lindane	0.983	0.417818636	0.417818636

Table 15.1-62 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the DEH Study Area – Building 269/293

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
PESTICIDES			
Aldrin	0.28	2639.285811	0.28
delta-BHC	0.108	145267.7403	0.108
Chlordane	80	2.19895E+13	80
ppDDT	5.45	11870005797	5.45
Dieldrin	0.937	22767324.84	0.937
Heptachlor	0.766	7301649.5	0.766
Heptachlor epoxide	0.203	12.26792324	0.203

Table 15.1-63 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the DEH Study Area -- Building 283

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Lead	1200	NA	1200
POLYNUCLEAR AROMATIC HYDROCARBONS			
Benzo(a)anthracene	1.152	NA	1.152
2-Methylnaphthalene	0.385	NA	0.385
Phenanthrene	0.705	NA	0.705
PESTICIDES			
ppDDD	2.227	NA	2.227

Table 15.1-64 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the DEH Study Area -- Building 286

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Manganese	4650	NA	4650

Table 15.1-65 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Main Post Study Area – Building 215

COC	Maximum Detected Value (μg/L)	95 Percent UCL (μg/L)	Exposure Point Concentration (mg/L)
GROUNDWATER			
INORGANICS			
Aluminum	1070	NA	1.07
Antimony	12.6	NA	0.0126
Arsenic	2.1	NA	0.0021
Beryllium	1	NA	0.001
Chromium[a]	36	NA	0.036
Chromium VI			0.036
Cyanide	6.3	NA	0.0063
Lead	5.38	NA	0.00538
VOLATILE ORGANICS			
Chloroform	0.63	3.02	0.00063
1,2-Dichloroethane	2.39	2.14	0.002138
WATER QUALITY PARAMETERS			
Chloride	332000	NA	332
Total Dissolved Solids	634000	NA	634

a. Total chromium in water is assumed to be chromium VI.

Table 15.1-66 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Main Post Study Area -- Building 1151/1152

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SUBSURFACE SOIL			
PCBS			
PCB 1260	11.284	NA	11.284

Table 15.1-67 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Fill Sites and Landfills – Landfill 2

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
POLYNUCLEAR AROMATIC HYDROCARBONS			
Phenanthrene	2.77	1152.160341	2.77
PESTICIDES			
ppDDT	3.04	1.46881E+14	3.04
MCPP	4.85	NA	4.85

Table 15.1-68 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Fill Sites and Landfills -- El Polin Spring

COC	Maximum Detected Value (μg/L)	95 Percent UCL (μg/L)	Exposure Point Concentration (mg/L)
SURFACE WATER			
INORGANICS			
Antimony	7.1	NA	0.0071
Beryllium	1	NA	0.001
Chromium[a]	44.8	NA	0.0448
Chromium VI[a]	29.7	NA	0.0297
Cyanide	9	NA	0.009
Lead	4.34	NA	0.00434
Manganese	118	NA	0.118

a. Total chromium in water is assumed to be chromium VI. The exposure point concentration in the risk assessment is the larger value of these two COCs.

Table 15.1-69 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Fill Sites and Landfills -- Transfer Station

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
SEMIVOLATILE ORGANICS			
Bis(2-ethylhexyl) phthalate	48.8	37.51168538	37.51168538
POLYNUCLEAR AROMATIC HYDROCARBONS			
Benzo(a)anthracene	2.86	1.01240082	1.01240082
2-Methylnaphthalene	0.089	0.097643929	0.089
Phenanthrene	22.8	186.9784764	22.8
PESTICIDES			
Isodrin	0.004	0.002371304	0.002371304

Table 15.1-70 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Fill Sites and Landfills – Landfill 4 at Fill Sites and Landfills – Landfill 4

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
PESTICIDES			
delta-BHC	0.027	NA	0.027
Isodrin	0.005	NA	0.005

Table 15.1-71 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Fill Sites and Landfills -- Fill Site 6

COC	Maximum Detected Value (μg/L)	95 Percent UCL (μg/L)	Exposure Point Concentration (mg/L)
GROUNDWATER			
INORGANICS			
Aluminum	214000	160412585.6	214
Arsenic	51	3470.447996	0.051
Barium	1100	11274.73623	1.1
Beryllium	5	26.87796785	0.005
Chromium[a]	1910	329233.2828	1.91
Chromium VI			1.91
Lead	56.4	4321.38478	0.0564
Manganese	5050	306361.783	5.05
Nickel	2260	70949.58757	2.26
Vanadium	1290	53497.37607	1.29

a. Total chromium in water is assumed to be 100% chromium VI

Table 15.1-72 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Fill Sites and Landfills -- Landfill E

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Silver	3230	1.68423E+14	3230
PESTICIDES			
delta-BHC	0.003	0.002884413	0.002884413
ppDDT	2.41	29008790.42	2.41
Endrin aldehyde	0.005	0.018091377	0.005
MCPP	4.84	NA	4.84

Table 15.1-73 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Miscellaneous Sites -- Building 662

COC	Maximum Detected Value	95 Percent UCL	Exposure Point Concentration
GROUNDWATER	(μg/L)	(μg/L)	(mg/L)
INORGANICS			
Lead	6	NA	0.006

Table 15.1-74 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Miscellaneous Sites -- Building 680

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
PCBS			
PCB 1260	13.593	NA	13.593
SUBSURFACE SOIL			
PCBS			
PCB 1260	5.07	76545.72	5.073

Table 15.1-75 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Miscellaneous Sites -- Building 1351

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SUBSURFACE SOIL			
INORGANICS			
Cadmium	17.6	8.52194556	8.52194556
SEMVOLATILE ORGANICS			
Bis(2-ethylhexyl) phthalate	44.71	9.150252496	9.150252496

Table 15.1-76 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Miscellaneous Sites -- FPCGS

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
SEMIVOLATILE ORGANICS			
TPH-gas fraction	22675.738	9.90E+09	22675.738
n-hexane	13605.4428	5.94E+09	13605.4428
naphthalene	9070.2952	3.96E+09	9070.2952
POLYNUCLEAR AROMATIC HYDROCARBONS			
Benzo(a)anthracene	13.19	18.97	13.19
Benzo(b)fluoranthene	29.073	1261.74	29.073
Benzo(k)fluoranthene	29.624	579.61	29.624
Benzo(g,h,i)perylene	10.428	11.13	10.428
Chrysene	20.346	69.69	20.346
Dibenzo(a,h)anthracene	4.287	133.56	4.287
Phenanthrene	49.929	269.86	49.929

Table 15.1-77 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at for Miscellaneous Sites -- Lobos Creek

COC	Maximum Detected Value	95 Percent UCL	Exposure Point Concentration
SURFACE WATER	(μg/L)	(μg/L)	(mg/L)
INORGANICS			
Lead	8.551	6.45093744	0.006450937
Manganese	236	18571.7793	0.236
WATER QUALITY PARAMETERS			
Nitrite, nitrate-non-specific	14762.387	NA	14.762387
SEDIMENT	(mg/kg)	(mg/kg)	(mg/kg)
INORGANICS			
Arsenic	14.619	NA	14.619

Table 15.1-78 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Miscellaneous Sites -- Drinking Water Source

COC	Drinking Water Concentration (µg/L)[a]	95 Percent UCL (µg/L)	Exposure Point Concentration (mg/L)
DRINKING WATER			
INORGANICS			
Manganese	212.85	NA	0.21285
Lead	7.9559	NA	0.0079559
WATER QUALITY PARAMETERS			
Nitrite/nitrate-non-specific[b]	13299.0483	NA	13.2990483

a. Drinking water concentration is 90% Lobos Creek maximum concentration plus 10% Well 13 maximum concentration
b. Assumed nitrate

Table 15.1-79 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at for Miscellaneous Sites -- Mountain Lake

COC	Maximum Detected Value (μg/L)	95 Percent UCL (μg/L)	Exposure Point Concentration (mg/L)
SURFACE WATER			
INORGANICS			
Cyanide	8.137	NA	0.008137
Lead	9.086	NA	0.009086
WATER QUALITY PARAMETERS			
Chloride	142039.531	NA	142.039531
Sulfate	44100.469	NA	44.100469
Total Dissolved Solids	620000	NA	620

Table 15.1-80 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Baker Beach Study Area -- Disturbed Area 1a

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
POLYNUCLEAR AROMATIC HYDROCARBONS			
Acenaphthylene	0.3	NA	0.3
Benzo(a)pyrene	2	NA	2
Benzo(b)fluoranthene	2	NA	2
Benzo(g,h,i)perylene	3	NA	3
Indeno(1,2,3-cd)pyrene	2	NA	2
Phenanthrene	1	NA	1
PESTICIDES			
delta-BHC	0.007	NA	0.007

Table 15.1-81 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Baker Beach Study Area -- Disturbed Area 1

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Antimony	100	377.2181399	100
Lead	2050	1216.985237	1216.985237
POLYNUCLEAR AROMATIC HYDROCARBONS			
2-Methynaphthalene	0.039	0.034462774	0.034462774
Phenanthrene	0.082	0.175766262	0.082
PESTICIDES			
Dieldrin	0.059	2.096727002	0.059
SURFACE WATER	(μg/L)	(μg/L)	(mg/L)
INORGANICS			
Manganese	187	NA	0.187
WATER QUALITY PARAMETERS			
Total Dissolved Solids	973000	NA	973
SEDIMENT			
INORGANICS			
Lead	3700	NA	3700
PCBS			
PCB 1260	0.126	NA	0.126

Table 15.1-82 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Baker Beach Study Area -- Disturbed Area 2

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
POLYNUCLEAR AROMATIC HYDROCARBONS			
Acenaphthylene	0.1	NA	0.1
Benzo(a)pyrene	0.54	NA	0.54
Phenanthrene	0.44	NA	0.44

Table 15.1-83 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Baker Beach Study Area -- Disturbed Area 3

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
INORGANICS			
Antimony	156	412.7062638	156
Chromium[a]	1590	117122.0423	1590
Chromium III			1589.841
Chromium VI			0.159
Nickel	4300	36235612.01	4300
POLYNUCLEAR AROMATIC HYDROCARBONS			
Phenanthrene	0.3	13.56680564	0.3

a. Total chromium in soil is assumed to be 99.99% chromium III and 0.01% chromium VI

Table 15.1-84 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at the Baker Beach Study Area -- Disturbed Area 4

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
PESTICIDES			
Chlordane	0.4	56.26093216	0.4

Table 15.1-85 Maximum Detected Values, 95 Percent UCL, and Exposure Point Concentrations for COCs at Miscellaneous Follow-on Sites -- EOM

COC	Maximum Detected Value (mg/kg)	95 Percent UCL (mg/kg)	Exposure Point Concentration (mg/kg)
SURFACE SOIL			
SEMIVOLATILE ORGANICS			
Bis(2-chloroethoxy) methane	0.569	0.71	0.569
PESTICIDES			
ppDDE	8.49	NA	8.49
ppDDT	4.66	NA	4.66

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 1 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Nike Facility				
Building 1450/1451	Wipes Surface soil[e] Subsurface soil[e] Groundwater Sediment	Institutional	DW - oral, dermal	
Silo/Storage Area	Surface soil Subsurface soil Surface water Groundwater Sediment	Open Space	SS - oral, dermal	
Nike Facility	Groundwater	Institutional	GW - oral, dermal	
Crissy Field Study Area				
Building 609	Surface soil[e]	Open Space	Not applicable	Surface soil had no COCs. Therefore, no pathways were assessed.
Building 611	Surface soil[e]	Open Space	Not applicable	Surface soil had no COCs. Therefore, no pathways were assessed.
Building 633	Surface soil[e] Subsurface soil	Open Space	Not applicable	Surface soil had no COCs and subsurface soil is not an applicable media. Therefore, no pathways were assessed.
Building 634	Wipes	Open Space	Not applicable	Wipes are not an applicable media. Therefore, no pathways were assessed.
Building 637[f]	Surface soil Subsurface soil Groundwater Storm water Sediment	Not assessed	Not applicable	Buildings 637 and 638 are assessed together. This site is assessed under the Sacramento Corps of Engineers Program.

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 2 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Building 638[f]	Surface soil Subsurface soil	Not assessed	Not applicable	This site is assessed under the Sacramento Corps of Engineers Program.
Building 640	Wipes Subsurface soil Sediment	Institutional	SS - oral, dermal SB - oral, dermal DW - oral, dermal	Buildings 640 and 643 were assessed together.
Building 643	Wipes Surface soil Subsurface soil	Institutional	SS - oral, dermal SB - oral, dermal DW - oral, dermal	
Building 642	Surface soil[e] Subsurface soil	Open Space	Not applicable	Surface soil had no COCs and subsurface soil is not an applicable media. Therefore, no pathways were assessed.
Fill Site 7	Surface soil Subsurface soil Sediment Groundwater	Open Space	SS (2') - oral, dermal	
Proposed Wetlands Restoration Area	Surface soil Subsurface soil Groundwater	Construction and Open Space	GW - oral, dermal; SS (15') - oral, dermal	Construction scenario is exposed to GW. Open space scenario is exposed to SS.
Sewer Lift Stations	Surface soil Subsurface soil Groundwater	Open Space	SS (2') - oral, dermal	
Building 900s Series Study Area				
Building 920	Surface soil[e] Subsurface soil[e]	Institutional	DW - oral, dermal	
Building 926	Wipes	Institutional	DW - oral, dermal	Buildings 926 and 927 were assessed together.
Building 927	Subsurface soil[e]			

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 3 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Building 923/924	Wipes Surface soil Subsurface soil[e]	Institutional	SS - oral, dermal DW - oral, dermal	Buildings 923/924, 925, 929, 930, 931, 933, 934, and 935 were assessed together.
Building 925	Surface soil	Institutional	SS - oral, dermal DW - oral, dermal	
Building 929	Wipes Surface soil	Institutional	SS - oral, dermal DW - oral, dermal	
Building 930	Wipes Surface soil	Institutional	SS - oral, dermal DW - oral, dermal	
Building 931	Wipes Surface soil Subsurface soil[e]	Institutional	SS - oral, dermal DW - oral, dermal	
Building 933	Wipes Surface soil	Institutional	SS - oral, dermal DW - oral, dermal	
Building 934	Wipes	Institutional	SS - oral, dermal DW - oral, dermal	
Building 935	Wipes Surface soil	Institutional	SS - oral, dermal DW - oral, dermal	
Building 937	Wipes Surface soil[e] Subsurface soil Groundwater	Institutional	SB - oral, dermal DW - oral, dermal GW - oral, dermal	
Building 949	Surface soil[e] Subsurface soil	Open Space	Not applicable	Surface soil had no COCs and subsurface soil is not an applicable media. Therefore, no pathways were assessed.

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 4 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Building 950	Surface soil Subsurface soil	Open Space	SS (2') - oral, dermal	Building 950, 973/974, 979, and 900's were assessed together.
Building 973/974	Surface soil Subsurface soil	Open Space	SS (2') - oral, dermal	
Building 979	Subsurface soil Groundwater	Open Space	SS (2') - oral, dermal	
Building 900's	Groundwater	Construction	GW - oral, dermal	
DEH Study Area				
Building 267	Subsurface soil	Open Space	SS (2') - oral, dermal	Buildings 267, 268, and 287 were assessed together.
Building 268	Surface soil Subsurface soil	Open Space	SS (2') - oral, dermal	
Building 287	Subsurface soil[f] Groundwater	Open Space	SS (2') - oral, dermal	
Building 269	Surface soil Subsurface soil	Open Space	SS (2') - oral, dermal	Buildings 269 and 293 were assessed together.
Building 293	Surface soil Subsurface soil	Open Space	SS (2') - oral, dermal	
Building 283	Wipes Surface soil Subsurface soil Sediment	Open Space	SS (2') - oral, dermal	
Building 285	Sediment	Open Space	Not applicable	Sediment is not an applicable media, therefore no pathways were assessed.

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 5 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI [c]	Pathways Assessed[d]	Notes
Building 286	Surface Soil Subsurface soil[g] Groundwater Sediment	Open Space	SS (2') - oral, dermal	
Main Post Study Area				
Building 215	Subsurface soil[e] Groundwater	Institutional	DW - oral, dermal GW - oral, dermal	
Building 228	Subsurface soil[e]	Commercial/Office	DW - oral, dermal	
Building 231 Area[f]	Subsurface soil Groundwater	Not assessed	Not applicable	This site is assessed under the Sacramento Corps of Engineers Program.
Building 1057	Subsurface soil[e] Sediment[e]	Institutional	DW - oral, dermal	Sediment assessed as surface soil.
Building 1065[f]	Surface soil Subsurface soil Groundwater	Not assessed	Not applicable	This site is assessed under the Sacramento Corps of Engineers Program.
Building 1151/1152	Subsurface soil	Institutional	SB - oral, dermal DW - oral, dermal	
Building 1167	Subsurface soil	Institutional	SB - oral, dermal DW - oral, dermal	
Fill Sites and Landfills				
Fill Site 1	Surface soil[e] Subsurface soil Groundwater	Open Space	Not applicable	Surface soil had no COCs and subsurface soil and groundwater are not applicable media. Therefore, no pathways were assessed.

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 6 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Landfill 2	Surface soil Subsurface soil Groundwater	Open Space	SS - oral, dermal	
El Polin Spring	Surface water	Open Space	SW - oral, dermal	
Transfer Station	Surface soil Subsurface soil	Open Space	SS - oral, dermal	
Landfill 4	Surface soil Subsurface soil Groundwater	Open Space	SS - oral, dermal	
Fill Site 5	Surface soil[e] Subsurface soil	Open Space	Not applicable	Surface soil had no COCs and subsurface soil is not an applicable media. Therefore, no pathways were assessed.
Fill Site 6	Subsurface soil[e] Groundwater	Institutional	DW - oral, dermal GW - oral, dermal	
Graded Area 9	Subsurface soil	Open Space	Not applicable	Subsurface soil is not an applicable media. Therefore, no pathways were assessed.
Landfill E	Surface soil Subsurface soil Groundwater	Open Space	SS - oral, dermal	
Miscellaneous Sites				
Building 662	Surface soil[e] Subsurface soil Groundwater	Institutional	SB - oral, dermal DW - oral, dermal GW - oral, dermal	
Building 680	Wipes Surface soil Subsurface soil	Institutional	SS - oral, dermal SB - oral, dermal DW - oral, dermal	

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 7 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI [c]	Pathways Assessed[d]	Notes
Building 1244	Wipes Subsurface soil[e]	Institutional	DW - oral, dermal	
Building 1351	Wipes Surface soil Subsurface soil	Industrial	SS - oral, dermal SB - oral, dermal DW - oral, dermal	
FPCGS 995/996 UST	Surface soil Subsurface soil Groundwater	Not assessed	Not applicable	This site is assessed under the Coast Guard Program.
FPCGS 995/996 Non-UST	Surface soil Subsurface soil Groundwater	Open Space	SS (2') - oral, dermal	
Lobos Creek	Surface water Sediment	Open Space	SW - oral, dermal SD - oral, dermal	
Mountain Lake	Surface water Sediment[e] Groundwater	Open Space	SW - oral, dermal	
GGBHTD Study Area				
UST Area	Wipes Subsurface soil Groundwater	Not assessed	Not applicable	This site is assessed under the Golden Gate Bridge Highway and Transportation District.
Paint Operations Area	Surface soil Subsurface soil Sediment	Not assessed	Not applicable	This site is assessed under the Golden Gate Bridge Highway and Transportation District.
Bone Yard Area	Surface soil Subsurface soil Sediment	Not assessed	Not applicable	This site is assessed under the Golden Gate Bridge Highway and Transportation District.

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 8 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Baker Beach Study Area				
Disturbed Area 1a	Surface soil Subsurface soil	Open Space	SS - oral, dermal	
Disturbed Area 1	Surface soil Subsurface soil Surface water Sediment	Open Space	SS - oral, dermal SW - oral, dermal SD - oral, dermal	
Disturbed Area 2	Surface soil Subsurface soil	Open Space	SS - oral, dermal	
Disturbed Area 3	Surface soil Subsurface soil	Open Space	SS - oral, dermal	
Disturbed Area 4	Surface soil Subsurface soil	Open Space	SS - oral, dermal	
Battery Howe/Wagner				
Building 1287	Surface soil[e] Subsurface soil Groundwater	Open Space	Not applicable	Surface soil had no COCs and subsurface soil and groundwater are not applicable media. Therefore, no pathways were assessed.
Miscellaneous Follow-on Sites				
Building 302	Subsurface soil	Open Space	Not applicable	Subsurface soil is not an applicable media. Therefore, no pathways were assessed.
Building 669	None	Institutional	DW - oral, dermal	
Building 1245	Subsurface soil[e]	Institutional	DW - oral, dermal	
Building 1369	Surface soil[e] Subsurface soil[e]	Institutional	DW - oral, dermal	

Table 15.1-86 Risk Assessment Scenarios and Planned NPS Land Use Classifications (page 9 of 9)

Study Area/Site[a]	Media Sampled[b]	Scenario Assessed in RI[c]	Pathways Assessed[d]	Notes
Building 1388	Subsurface soil[e]	Institutional	DW - oral, dermal	
Building 1750	Subsurface soil[e] Soil gas	Industrial	DW - oral, dermal	
EOM	Surface soil Subsurface soil Groundwater	Open Space	SS (2') - oral, dermal	

a Study Areas and Sites as identified in the RI.

b Media sampled during the Initial, Supplemental, and Follow-on Field Programs.
- Surface soil are soil samples taken from 0 to less than 0.5 feet below surface unless indicated with SS (2') in the Pathways Assessed column
- Subsurface soil samples were soil samples taken at 0.5 feet and below
- Surface soil samples indicated as SS (2') in the Pathways Assessed column were soil samples taken from 0 to less than 2 feet below surface and the corresponding subsurface soil samples were taken at or below 2 feet
- Soil samples at the proposed wetlands restoration area were taken from 0 to less than 15 feet
- Wipe samples and soil gas data were not assessed for risk.

c Scenarios assessed (industrial or recreational) are future NPS land use classifications from the NPS General Management Plan Amendment.

d Pathways were assessed as indicated using ingestion of (oral) or dermal contact with (dermal) for both adults and children (recreational and residential only) and for adults only for industrial scenarios:
- SS = surface soil (0 to less than 0.5 feet)
- SS (2') = surface soil (0 to less than 2 feet)
- SB = subsurface soil (greater than or equal to 0.5 feet except when SS = 0 to less than 2 feet, then greater than or equal to 2 feet)
- DW = drinking water from the drinking water source (90% Lobos Creek, 10% Well 13)
- GW = groundwater (construction worker in proposed wetland restoration area and 900s Study Area; as a drinking water source all other areas with industrial future land use)
- SW = surface water (older children only)
- SD = sediment (older children only).

e No chemicals of concern were determined in the media.

f Soil samples taken at this site were at or below 0.5 feet and thus indicated as subsurface soil samples in the RI and Media Sampled column.

Table 15.1-87 Residential PRG Ratios Assessment Media Assessed (Page 1 of 5)

Study Area/Site	Media Assessed	Inorganic COPCs
Nike Facility		
Building 1450/1451	Surface soil w/ sediment Subsurface soil	none none
Silo/Storage Area	Surface soil w/ sediment Subsurface soil	As, Cu, Pb, Se, Zn Se
Nike Facility	Groundwater	all
Crissy Field Study Area		
Building 609	Surface soil (to 2')	no inorganics
Building 611	Surface soil (no COPCs)	
Building 633	Surface soil (to 2')	Pb
Building 634	No soil samples	
Building 637/638 (COE)		
Building 640/643	Surface soil Subsurface soil w/ sediment	Ba, Cd, Pb, Zn Cr, Co, Ni
Building 642	Surface soil (to 2')	No inorganics
Fill Site 7	Surface soil (to 2')	Sb, Ba, Be, Cu, Mn, Hg
Sewer Lift Stations	Surface soil (to 2')	Cu, CN, Pb, Hg, Se
Proposed Wetlands Restoration Area	Soil (to 15') Groundwater	Sb, Ba, Be, Cu, Mn, Hg all
Non-wetlands Restoration Area (excluding building 637)	Groundwater	all
Building 900s Series Study Area		
Building 920	Surface soil (no COPCs) Subsurface soil (no COPCs)	
Building 926/927	Subsurface soil (no COPCs)	

Table 15.1-87 Residential PRG Ratios Assessment Media Assessed (Page 2 of 5)

Study Area/Site	Media Assessed	Inorganic COPCs
Building 923/924/925/929/ 930/931/933/934/935	Surface soil Subsurface soil	As, Ba, Cd, Cu, Pb, Hg, Zn Sb
Building 937	Surface soil Subsurface soil	Pb Sb
Building 949	Surface soil (to 2')	Cu
Building 950/973/974/979	Surface soil (to 2')	Sb, As, Ba, Cd, CN, Pb, Hg, Tl, Zn
Building 900s Study Area	Groundwater	all
DEH Study Area		
Building 267/268/287	Surface soil (to 2')	Cr, Cu, CN, Pb, Ag, Zn
Building 269/293	Surface soil (to 2')	Se
Building 283	Surface soil (to 2')	Cd, Cu, CN, Pb, Mn, Hg, Zn
Building 285	no soil samples	
Building 286	Surface soil (to 2')	Sb, Cu, Mn
DEH Study Area	Groundwater	all
Main Post Study Area		
Building 215	Subsurface soil (no COPCs) Groundwater	 all
Building 228	Subsurface soil	no inorganics
Building 231Area (COE)		
Building 1057	Surface soil w/ sediment Subsurface soil	Cd, Pb, Hg, Zn none
Building 1065 (COE)		
Building 1151/1152	Subsurface soil	none
Building 1167	Subsurface soil	Pb, Hg, Zn

Table 15.1-87 Residential PRG Ratios Assessment Media Assessed (Page 3 of 5)

Study Area/Site	Media Assessed	Inorganic COPCs
Fill Sites and Landfills		
Fill Site 1	Surface soil	no inorganics
	Subsurface soil	no inorganics
	Groundwater	all
Landfill 2	Surface soil	Ba, Cu, Pb, Zn
	Subsurface soil	Sb, Ba, Cu, CN, Pb, Hg, Ag, Zn
	Groundwater	all
El Polin Spring	Surface water	all
Transfer Station	Surface soil	Al, Ba, Pb, Hg, V
	Subsurface soil	Ba, V
Landfill 4	Surface soil	none
	Subsurface soil	Sb, Pb, Hg
	Groundwater	all
Fill Site 5	Surface soil	none
	Subsurface soil	none
Fill Site 6	Subsurface soil	none
	Groundwater	all
Graded Area 9	Subsurface soil	Al, V
Landfill E	Surface soil	Hg, Ag, Zn
	Subsurface soil	Ba, Cd, Cu, Fe, Pb, Hg, Ag, Zn
	Groundwater	all
Miscellaneous Sites		
Building 662	Surface soil (no COPCs)	
	Subsurface soil	Pb, Zn
	Groundwater	all
Building 680	Surface soil	no inorganics
	Subsurface soil	no inorganics
Building 1244	Subsurface soil	Pb

Table 15.1-87 Residential PRG Ratios Assessment Media Assessed (Page 4 of 5)

Study Area/Site	Media Assessed	Inorganic COPCs
Building 1351	Surface soil	Pb
	Subsurface soil	Ba, Cd, Cu, Pb, Mn, Hg, Zn
FPCGS 995/996 UST (USCG)		
FPCGS 995/996 Non-UST	Surface soil (to 2')	Pb, Zn
	Groundwater	all
Lobos Creek	Surface water	all
	Sediment	As
Mountain Lake	Surface water	all
	Sediment	none
	Groundwater	all
GGBHTD Study Area		
UST Area (GGBHTD)		
Paint Operations Area (GGBHTD)		
Bone Yard Area (GGBHTD)		
Baker Beach Study Area		
Disturbed Area 1a	Surface soil	none
Disturbed Area 1	Surface soil	Sb, Pb, Se, Zn
	Surface water	all
	Sediment	Ba, Cu, Pb, Ag, Zn
Disturbed Area 2	Surface soil	none
Disturbed Area 3	Surface soil	Sb, Cr, Co, Fe, Pb, Ni, Zn
Disturbed Area 4	Surface soil	none
Battery Howe/Wagner		
Building 1287	Surface soil	none
	Subsurface soil	Sb, Cr, Ni
	Groundwater	all

Table 15.1-87 Residential PRG Ratios Assessment Media Assessed (Page 5 of 5)

Study Area/Site	Media Assessed	Inorganic COPCs
Miscellaneous Follow-on Sites		
Building 302	Subsurface soil	CN, Hg
Building 669	No media sampled	
Building 1245	Subsurface soil	no inorganics
Building 1369	Surface soil (no COPCs) Subsurface soil	Pb
Building 1388	Subsurface soil	no inorganics
Building 1750	Subsurface soil (no COPCs)	
EOM[a]	Surface soil (to 2')	none

a EOM groundwater is included in the Proposed Wetlands Restoration Area assessment under the Crissy Field Study Area

Surface soil is to 0.5 ft. unless otherwise noted

Table 15.1-88 Soil Ingestion Exposure Algorithm

$$\text{Recreational Carcinogenic Intake (mg/kg-day)} = \frac{CS \times CF \times FI \times EF \times \left(\frac{IR_{adult} \times ED_{adult}}{BW_{adult}} + \frac{IR_{child} \times ED_{child}}{BW_{child}}\right)}{AT_{total}}$$

$$\text{Recreational Non-carcinogenic Intake (mg/kg-day)} = \frac{CS \times IR_{child} \times CF \times FI \times EF \times ED_{child}}{BW_{child} \times AT_{child}}$$

$$\text{Industrial Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times FI \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical concentration in soil (mg/kg)
IR = Ingestion rate (mg soil/day)
CF = Conversion factor (10^{-6} kg/mg)
FI = Fraction ingested from contaminated source (unitless)
EF = Exposure frequency (days/years)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Recreational Scenario	Industrial Scenario
CS	(Site-specific soil exposure point concentration)	
IR	100 (adult) 200 (child)	50
FI	0.5[b]	1.0
EF	150[c]	250
ED	24 (adult) 6 (child)	25
BW	70 (adult) 15 (child)	70
AT	27,375 carcinogen 2190 non-carcinogen (child only)	27,375 carcinogen 9125 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Assumed to be 50% of total soil ingested (best professional judgment)

[c] Based on exposure occurring 3 days/week for 50 weeks/year (best professional judgment)

Table 15.1-89 Soil Dermal Exposure Algorithm

$$\text{Recreational Carcinogenic Absorbed dose (mg/kg-day)} = \frac{CS \times CF \times AF \times ABS \times EF \times \left(\frac{SA_{adult} \times ED_{adult}}{BW_{adult}} + \frac{SA_{child} \times ED_{child}}{BW_{child}}\right)}{AT_{total}}$$

$$\text{Recreational Non-carcinogenic Absorbed dose (mg/kg-day)} = \frac{CS \times CF \times SA_{child} \times AF \times ABS \times EF \times ED_{child}}{BW_{child} \times AT_{child}}$$

$$\text{Industrial Absorbed dose (mg/kg-day)} = \frac{CS \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical concentration in soil (mg/kg)
CF = Conversion factor (10^{-6} kg/mg)
SA = Skin surface area available for contact (cm^2/event)
AF = Soil-to-skin adherence factor (mg/cm^2)
ABS = Absorption factor (unitless)
EF = Exposure frequency (events/year)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Recreational Scenario	Industrial Scenario
CS	(Site-specific surface and subsurface soil exposure point concentration)	
SA	3,000[b] (adult) 1,300 (child)	2,000[c]
AF	0.5[d]	0.5
ABS	(Chemical-specific; see Table 15.1-73)	
EF	150[e]	250
ED	24 (adult) 6 (child)	25
BW	70 (adult) 15 (child)	70
AT	27,375 carcinogen 2,190 non-carcinogen (child only)	27,375 carcinogen 9,125 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Surface area of average adult and child (1-9 years old) arms and hands (EPA, 1989a)

[c] Assumes worker will wear long-sleeved shirt, pants, and shoes; only head and hands exposed (EPA, 1989a)

[d] Estimate from Sedman (1989)

[e] Based on exposure occurring 3 days/week, 50 weeks/year (best professional judgment)

Table 15.1-90 Drinking Water Ingestion Exposure Algorithm

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical concentration in drinking water (mg/L)
IR = Ingestion rate (liters/day)
EF = Exposure frequency (days/years)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Industrial Scenario
CW	(Site-specific drinking water exposure point concentraton)
IR	1
EF	250
ED	25
BW	70
AT	27,375 carcinogen 9,125 non-carcinogen

[a] All exposure assumptions from EPA (1991b)

[b]Averaging time for the total of child and adult exposure duration (30 years)

Table 15.1-91 Drinking Water Dermal Exposure Algorithm

$$\text{Absorbed dose (mg/kg-day)} = \frac{CW \times SA \times PC \times CF \times ET \times EF \times \times ED}{BW \times AT_{total}}$$

where:

CW = Concentration of chemical in drinking water (mg/L)
SA = Skin surface area available for contact (cm^2)
PC = Chemical-specific dermal permeability constant (cm/hour)
CF = Volumetric conversion factor for water (1 L/1,000 cm^3)
ET = Exposure time (hours/day)
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time [period over which exposure is averaged (days)]
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Industrial Scenario
CW	(Site-specific drinking water exposure point concentration)
SA	17,000[b]
PC	(Chemical-specific; see text)
ET	0.25[c]
EF	250
ED	25
BW	70
AT	27,375 carcinogen 9,125 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Total body surface (except for head) of average adult (EPA, 1989a)

[c] Length of time spent bathing (best professional judgment

Table 15.1-92 Surface Water Ingestion Exposure Algorithm

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times ET \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical concentration in water (mg/L)
IR = Ingestion rate (liters/hour)
ET = Exposure time (hours/event)
EF = Exposure frequency (events/years)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Recreational Scenario[b]
CW	(Site-specific surface water exposure point concentration)
IR	0.05
ET	1[c]
EF	30[d]
ED	9
BW	49
AT	27,375 carcinogen 3,285 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Exposure to surface water assumed to occur only during 9–18 years of age (see text)

[c] Length of time in contact with water (best professional judgment)

[d] Based on exposure occurring 10 days/month during 3 summer months (best professional judgment)

Table 15.1-93 Surface Water Dermal Exposure Algorithm

$$\text{Absorbed dose (mg/kg-day)} = \frac{CW \times SA \times PC \times CF \times ET \times EF \times ED}{BW \times AT}$$

where:

CW = Concentration of chemical in surface water (mg/L)
SA = Skin surface area available for contact (cm^2)
PC = Chemical-specific dermal permeability constant (cm/hour)
CF = Volumetric conversion factor for water (1 L/1,000 cm^3)
ET = Exposure time (hours/event)
EF = Exposure frequency (events/year)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time [period over which exposure is averaged (days)]
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Recreational Scenario[b]
CW	(Site-specific surface water exposure point concentration)
SA	4,205[c]
PC	(Chemical-specific; see text)
ET	1[d]
EF	30[e]
ED	9
BW	49
AT	27,375 carcinogen 3,285 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Exposure to surface water assumed to occur only during 9-18 years of age (see text)

[c] Total body surface (except for head) of average of male and female older adult (9-18 years old) (EPA, 1989a)

[d] Length of time in contact with water (best professional judgment)

[e] Based on exposure occuring 10 days/month during 3 summer months (best professional judgement)

Table 15.1-94 Sediment Ingestion Exposure Algorithm

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times FI \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical concentration in sediment (mg/kg)
IR = Ingestion rate (mg sediment/day)
CF = Conversion factor (10^{-6} kg/mg)
FI = Fraction ingested from contaminated source (unitless)
EF = Exposure frequency (days/years)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Recreational Scenario[b]
CW	(Site-specific sediment exposure point concentration)
IR	100
FI	0.5[c]
EF	30[d]
ED	9
BW	49
AT	27,375 carcinogen 3,285 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Exposure to sediment assumed to occur only during 9–18 years of age (see text)

[c] Assumed to be 50% of total sediment ingested (best professional judgment)

[d] Based on exposure occuring 10 days/month during 3 summer months (best professional judgement)

Table 15.1-95 Sediment Dermal Exposure Algorithm

$$\text{Absorbed dose (mg/kg-day)} = \frac{CS \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical concentration in sediment (mg/kg)
CF = Conversion factor (10^{-6} kg/mg)
SA = Skin surface area available for contact (cm^2/event)
AF = Soil-to-skin adherence factor (mg/cm^2)
ABS = Absorption factor (unitless)
EF = Exposure frequency (events/year)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Recreational Scenario[b]
CS	(Site-specific sediment exposure point concentration)
SA	4,205[c]
AF	0.5[d]
ABS	(Chemical-specific; see Table 15.1.2-14)
EF	30[e]
ED	9
BW	49
AT	27,375 carcinogen 3,285 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Exposure to sediment water assumed to occur only during 9-18 years of age (see text)

[c] Total body surface (except for head) of average of male and female older adult (9-18 years old) (EPA, 1989a)

[d] Estimate from Sedman (1989)

[e] Based on exposure occuring 10 days/month during 3 summer months (best professional judgement)

Table 15.1-96 Groundwater Ingestion Exposure Algorithm

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times ET \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical concentration in groundwater (mg/L)
IR = Ingestion rate (liters/hour)
ET = Exposure time (hours/event)
EF = Exposure frequency (events/years)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Construction Scenario[b]
CW	(Site-specific groundwater exposure point concentration)
IR	0.05[c]
ET	2[d]
EF	60[e]
ED	1
BW	70
AT	27,375 carcinogen 365 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Exposure to groundwater assumed to occur only during construction of the proposed wetlands restoration area and Building 900s Study Area UST remediation (see text)

[c] Conservatively assumed same value as incidental ingestion of surface water while swimming (EPA, 1989a)

[d] Length of time in contact with water (best professional judgment)

[e] Based on exposure occuring 5 days/week, 12 weeks/year (best professional judgement)

Table 15.1-97 Groundwater Dermal Exposure Algorithm

$$\text{Absorbed dose (mg/kg-day)} = \frac{CW \times SA \times PC \times CF \times ET \times EF \times ED}{BW \times AT}$$

where:

CW = Concentration of chemical in groundwater (mg/L)
SA = Skin surface area available for contact (cm^2)
PC = Chemical-specific dermal permeability constant (cm/hour)
CF = Volumetric conversion factor for water (1 L/1,000 cm^3)
ET = Exposure time (hours/event)
EF = Exposure frequency (events/year)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time [period over which exposure is averaged (days)]
– carcinogenic effects: 75-year lifetime × 365 days/year
– noncarcinogenic effects: exposure duration (ED) × 365 days/year

Exposure Assumptions[a]

Parameter	Construction Scenario[b]
CW	(Site-specific groundwater exposure point concentration)
SA	2,000[c]
PC	(Chemical-specific; see text)
ET	2[d]
EF	60[e]
ED	1
BW	70
AT	27,375 carcinogen 365 non-carcinogen

[a] All exposure assumptions from EPA (1991b) unless otherwise noted

[b] Exposure to groundwater assumed to occur only during construction of the proposed wetlands restoration area and Building 900s Study Area UST remediation (see text)

[c] Assumes worker will wear long-sleeved shirt, pants, and shoes; only head and hands exposed (EPA, 1989a)

[d] Length of time in contact with water (best professional judgment)

[e] Based on exposure occuring 5 days/week, 12 weeks/year (best professional judgement)

Table 15.1-98 Toxicological and Chemical Parameters (page 1 of 3)

Chemical of Concern	Oral RfD (mg/kg-day)	Source	Oral CSF $(mg/kg\text{-}day)^{-1}$	Source	Absorption Factor (%)	Dermal Permeability (cm/hr)	Weight of Evidence	Target Organ
INORGANICS								
Aluminum	1.0	NCEA	—	—	0.010	—	—	—
Antimony	0.00040	IRIS	—	—	0.010	—	—	whole body,blood;increased mortality
Arsenic	0.00030	IRIS	1.5	IRIS	0.030	—	A	skin;keratosis, hyperpigmentation
Barium	0.07	IRIS	—	—	0.010	—	NA	oral-cardiovascular system; increased blood pressure
Beryllium	0.0050	IRIS	4.3	IRIS	0.010	—	B2	no observed effects
Cadmium (food)	0.00050	IRIS	—	—	0.010	—	B1	kidney;proteinuria
Cadmium (water)	0.0010	IRIS	—	—	0.010	—	B1	kidney;proteinuria
Chromium (total)	—	—	—	—	0.010	—	—	—
Chromium III	1.0	IRIS	—	—	0.010	—	NA	no observed effects
Chromium VI	0.0050	IRIS	0.42	CEPA	0.010	—	A	no observed effects
Cyanide	0.02	IRIS	—	—	0.010	—	D	whole body; dec. weight, thyroid; effects, nerve; myelin degen.
Lead	—	—	—	—	0.010	—	B2	CNS;neurotoxicity, blood;toxicity
Manganese (food)	0.14	IRIS	—	—	0.010	—	D	oral-CNS;effects
Manganese (water)	0.0050	IRIS	—	—	0.010	—	D	oral-CNS;effects
Mercury	0.00030	HEAST	—	—	0.010	—	D	oral-kidney;effects
Nickel	0.020	IRIS	—	—	0.010	—	NA	whole body;decreased weight, major organs;decreased weight
Selenium	0.005	IRIS	—	—	0.010	—	D	whole body; clinical selenosis
Silver	0.0050	IRIS	—	—	0.010	—	D	skin;argyria
Thallium	0.000080	IRIS	—	—	0.010	—	D	liver;increased SGOT, blood;increased serum LDH, hair;alopecia
Vanadium	0.007	HEAST	—	—	0.010	—	NA	no observed effects
VOLATILE ORGANICS								
Chloroform	0.01	IRIS	0.031	CEPA	—	—	B2	liver; lesions, fatty cyst formation
1,2-Dichloroethane	—	—	0.091	IRIS	0.10	0.0053	B2	—
1,1-Dichloroethene	0.009	IRIS	0.6	IRIS	0.10	0.016	C	liver; lesions
cis-1,2-Dichloroethene	0.01	HEAST	—	—	0.10	0.01	D	blood; dec. hemoglobin and hematocrit
1,2-Dichloroethene (total)	0.009	HEAST	—	—	0.10	0.01	NA	liver; lesions
Methylene chloride	0.060	IRIS	0.014	CEPA	0.10	0.0045	B2	oral-liver; toxicity
Trichloroethene	0.006	NCEA	0.015	CEPA	0.10	0.23	C	—
Vinyl chloride	—	—	7.0	HEAST/CEPA	0.10	0.0073	A	—

Table 15.1-98 Toxicological and Chemical Parameters (page 2 of 3)

Chemical of Concern	Oral RfD (mg/kg-day)	Source	Oral CSF $(mg/kg\text{-}day)^{-1}$	Source	Absorption Factor (%)	Dermal Permeability (cm/hr)	Weight of Evidence	Target Organ
SEMIVOLATE ORGANICS								
Bis(2-chloroethoxy)methane	—	—	—	—	0.10	—	D	—
Bis(2-ethylhexyl) phthalate	0.020	IRIS	0.0084	CEPA	0.10	—	B2	liver;increased weight
1,4-Dichlorobenzene	—	—	0.04	CEPA	0.10	0.062	C	—
n-Hexane (TPH-gas fraction)	0.060	HEAST/MDEP	—	—	0.10	—	—	oral-nervous system;neuropathy, testis;atrophy
Naphthalene (TPH fraction)	0.040	NCEA	—	—	0.10	0.069	D	whole body;decreased body weight
n-Nonane (TPH-diesel fraction)	0.60	MDEP	—	—	0.10	—	—	kidney;peripheral nephropathy
POLYNUCLEAR AROMATIC HYDROCARBONS								
Acenaphthylene	—	—	—	—	0.10	—	D	—
Benzo(a)anthracene	—	—	1.2	CEPA	0.10	0.81	B2	—
Benzo(b)fluoranthene	—	—	12	CEPA	—	1.2	B2	—
Benzo(k)fluoranthene	—	—	1.2	CEPA	0.10	—	B2	—
Benzo(g,h,i)perylene	—	—	—	—	0.10	—	D	—
Benzo(a)pyrene	—	—	12	CEPA	0.10	1.2	B2	—
Chrysene	—	—	1.2	CEPA	0.10	0.81	B2	—
Dibenzo(a,h)anthracene	—	—	4.1	CEPA	0.10	2.7	B2	—
Indeno(1,2,3-cd)pyrene	—	—	1.2	CEPA	0.10	1.9	B2	—
2-Methylnaphthalene	—	—	—	—	0.10	—	—	—
Phenanthrene	—	—	—	—	0.10	0.23	D	—
PCBS								
PCB 1254	0.000020	IRIS	7.7	IRIS/CEPA	0.06	0.71	B2	immune system;toxicity
PCB 1260	—	—	7.7	IRIS/CEPA	0.06	0.71	B2	—
PESTICIDES								
Aldrin	0.000030	IRIS	17	IRIS/CEPA	0.10	0.0016	B2	liver;lesions,toxicity
delta-BHC	—	—	—	—	0.10	—	D	—
Chlordane	0.000060	IRIS	1.2	CEPA	0.10	0.052	B2	liver;hypertrophy
ppDDD	—	—	0.24	IRIS/CEPA	0.10	0.28	B2	—
ppDDE	—	—	0.34	IRIS/CEPA	0.10	0.24	B2	—

Table 15.1-98 Toxicological and Chemical Parameters (page 3 of 3)

Chemical of Concern	Oral RfD (mg/kg-day)	Source	Oral CSF $(mg/kg\text{-}day)^{-1}$	Source	Absorption Factor (%)	Dermal Permeability (cm/hr)	Weight of Evidence	Target Organ
ppDDT	0.00050	IRIS	0.34	IRIS/CEPA	0.10	0.43	B2	liver;lesions
Dieldrin	0.000050	IRIS	16	IRIS/CEPA	0.10	0.016	B2	liver;lesions
Endrin aldehyde	0.00030	Endrin RfD	—	—	0.10	—	—	—
Heptachlor	0.00050	IRIS	5.7	CEPA	0.10	0.011	B2	liver;increased weight
Heptachlor epoxide	0.000013	IRIS	13	CEPA	0.10	—	B2	liver;increased relative weight
Isodrin	—	—	—	—	0.10	—	—	—
Lindane	0.00030	IRIS	1.1	CEPA	0.10	—	B2	liver,kidney;toxicity
MCPP	—	—	—	—	0.10	—	—	—
WATER QUALITY PARAMETERS								
Chloride	—	—	—	—	0.010	—	—	—
Fluoride	0.060	IRIS	—	—	0.10	—	—	tooth;fluorisis
Nitrate	1.6	IRIS	—	—	0.10	—	—	—
Nitrite	0.1	IRIS	—	—	0.10	—	—	blood; methemoglobinemia
Sulfate	—	—	—	—	0.10	—	—	—
Total Dissolved Solids	—	—	—	—	0.10	—	—	—

RfD = reference dose
CSF = cancer slope factor
IRIS = Integrated Risk Information System (EPA, 1996)
HEAST = Health Effects Assessment Summary Tables (EPA, 1995)
Carcinogenic weight of evidence classification:
CEPA = California Environmental Protection Agency
NCEA = National Center for Environmental Assessment
MDEP = Massachusetts Department of Environmental Protection
NA = not available
— = no data available
Group A = Human carcinogen (sufficient evidence of carcinogenicity in humans)
Group B = Probable human carcinogen (B1- limited evidence of carcinogenicity in humans; B2 - sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans)
Group C = Possible human carcinogen (limited evidence of carcinogenicity in animals with inadequate or lack of evidence in humans)
Group D = Not classifiable as human carcinogen (inadequate or no evidence)

Table 15.1-99 Derivation of Toxicity Values for Dermal Exposure to Chemicals

Chemical of Concern	Oral RfD (mg/kg-day)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Oral Absorption Factor (%)	Dermal RfD (mg/kg-day)	Dermal CSF $(mg/kg\text{-}day)^{-1}$
SEMIVOLATILE ORGANICS					
Bis(2-ethylhexyl) phthalate	0.020	0.0084	55	0.011	0.015
PCBS					
PCB 1254	0.000020	7.7	85	0.000010	9.1
PCB 1260		7.7	85		9.1
PESTICIDES					
Aldrin	0.000030	17	90	0.000027	15
alpha-BHC	—	6.3	97	—	6.5
Chlordane	0.000060	1.2	80	0.000048	1.5
ppDDD	—	0.24	70	—	0.34
ppDDE	—	0.34	70	—	0.49
ppDDT	0.00050	0.34	70	0.00035	0.49
Dieldrin	0.000050	16	90	0.000045	18
Heptachlor	0.00050	5.7	49	0.00025	12
Heptachlor epoxide	0.000013	13	49	0.0000064	27
Lindane	0.00030	1.1	99.4	0.00030	1.1

RfD = reference dose
CSF = cancer slope factor
— = Data not available

Table 15.1-100 Cancer Risk Estimates for the Nike Facility

Land Use Scenario/Exposure Pathway	Buildings 1450/1451	Silo/Storage Area	Nike Groundwater
Institutional Worker Scenario			
		Not a future land use scenario	
Ingestion of drinking water	COCs are not considered carcinogenic	---	---
Dermal absorption of drinking water	COCs are not considered carcinogenic	---	---
Ingestion of groundwater as drinking water	---	---	3E-04
Dermal absorption of groundwater as drinking water	---	---	6E-08
Total Cancer Risk	---	---	3E-04
Recreational Visitor Scenario			
	Not a future land use scenario		Not a future land use scenario
Ingestion of surface soil	---	6E-05	---
Dermal contact with surface soil	---	3E-05	---
Total Cancer Risk	---	1E-04	---

Table 15.1-101 Hazard Indices Greater than 1E+00 for the Nike Facility

Land Use Scenario/Exposure Pathway	Buildings 1450/1451	Silo/Storage Area	Nike Groundwater
Institutional Worker Scenario			
	All < 1E+00	Not a future land use scenario	
Manganese			
	---	---	---
Dermal absorption of drinking water	---	---	---
Ingestion of groundwater as drinking water	---	---	2E+00
Dermal absorption of groundwater as drinking water	---	---	NA
Manganese Total	---	---	2E+00
Recreational Visitor Scenario			
	Not a future land use scenario		Not a future land use scenario
Arsenic			
Ingestion of surface soil	---	1E+00	---
Dermal contact with surface soil	---	2E-01	---
Arsenic Total	---	1E+00	---

Table 15.1-102 Cancer Risk Estimates for the Crissy Field Study Area

Land Use Scenario/Exposure Pathway	Buildings 640/643	Fill Site 7	Proposed Wetlands Restoration Area	Sewer Lift Stations
Institutional Worker Scenario				
		Not a future land use scenario	Not a future land use scenario	Not a future land use scenario
Ingestion of subsurface soil	2E-09	---	---	---
Dermal absorption from subsurface soil	4E-10	---	---	---
Total Cancer Risk	2E-09	---	---	---
Construction Worker Scenario				
	Not a future land use scenario	Not a future land use scenario		Not a future land use scenario
Ingestion of groundwater during construction	---	---	6E-07	---
Dermal absorption from groundwater during construction	---	---	1E-09	---
Total Cancer Risk	---	---	6E-07	---
Recreational Visitor Scenario				
	Not a future land use scenario			
Ingestion of surface soil	---	6E-06	1E-06	COC not considered carcinogenic
Dermal absorption from surface soil	---	6E-06	4E-07	COC not considered carcinogenic
Total Cancer Risk	---	1E-05	1E-06	---

Table 15.1-103 Hazard Indices Greater Than 1E+00 for the Crissy Field Study Area

Land Use Scenario/Exposure Pathway	Buildings 640/643	Fill Site 7	Proposed Wetlands Restoration Area	Sewer Lift Stations
Institutional Worker Scenario	All < 1E+00	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario
Construction Worker Scenario	Not a future land use scenario	Not a future land use scenario	All < 1E+00	Not a future land use scenario
Recreational Visitor Scenario	Not a future land use scenario	All < 1E+00	All < 1E+00	All < 1E+00

Table 15.1-104 Cancer Risk Estimates for the Building 900s Series Study Area

Land Use Scenario/Exposure Pathway	Buildings 920	Building 926/927	Building 923/924/9225/929/ 930/931/933/934/935	Building 937	Building 950/973/ 974/979	Building 900s Series Groundwater
Institutional Worker Scenario					Not a future land use scenario	Not a future land use scenario
Ingestion of surface soil	No surface soil COCs	No surface soil COCs	7E-06	No surface soil COCs	---	---
Dermal absorption from surface soil	No surface soil COCs	No surface soil COCs	8E-06	No surface soil COCs	---	---
Ingestion of subsurface soil	No subsurface soil COCs	No subsurface soil COCs	No subsurface soil COCs	2E-08	---	---
Dermal absorption from subsurface soil	No subsurface soil COCs	No subsurface soil COCs	No subsurface soil COCs	5E-08	---	---
Ingestion of drinking water	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	---	---
Dermal absorption from drinking water	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	---	---
Total Cancer Risk	---	---	2E-05	7E-08	---	---
Construction Worker Scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	
Ingestion of groundwater during construction	---	---	---	---	---	7E-08
Dermal absorption from groundwater during constructi	---	---	---	---	---	2E-09
Total Cancer Risk	---	---	---	---	---	7E-08
Recreational Visitor Scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario		Not a future land use scenario
Ingestion of surface soil	---	---	---	---	3E-06	---
Dermal absorption from surface soil	---	---	---	---	1E-06	---
Total Cancer Risk	---	---	---	---	5E-06	---

Table 15.1-105 Hazard Indices Greater Than 1E+00 for the Building 900s Series Study Area

Land Use Scenario/Exposure Pathway	Buildings 920	Building 926/927	Building 923/924/9225/929/ 930/931/933/934/935	Building 937	Building 950/973/ 974/979	Building 900s Series Groundwater
Institutional Worker Scenario	All < 1E+00	All < 1E+00	All < 1E+00	All < 1E+00	Not a future land use scenario	Not a future land use scenario
Construction Worker Scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	All < 1E+00
Recreational Visitor Scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	All < 1E+00	Not a future land use scenario

Table 15.1-106 Cancer Risk Estimates for the DEH Study Area

Land Use Scenario/Exposure Pathway	Building 267/268/287	Building 269/293	Building 283	Building 286
Recreational Visitor Scenario				
Ingestion of surface soil	2E-05	4E-05	6E-07	COC not considered carcinogenic
Dermal absorption from surface soil	3E-05	7E-05	9E-07	COC not considered carcinogenic
Total Cancer Risk	5E-05	1E-04	2E-06	—

Table 15.1-107 Hazard Indices Greater Than 1E+00 for the DEH Study Area

Land Use Scenario/Exposure Pathway	Building 267/268/287	Building 269/293	Building 283	Building 286
Recreational Visitor Scenario	All < 1E+00		COCs not considered noncarcinogenic	All < 1E+00
Chlordane				
Ingestion of surface soil	—	4E+00	—	—
Dermal absorption from surface soil	—	3E+00	—	—
Chlordane Total	—	7E+00	—	—

Table 15.1-108 Cancer Risk Estimates for the Main Post Study Area

Land Use Scenario/Exposure Pathway	Buildings 215	Building 228	Building 1057	Building 1151/1152	Building 1167
Institutional Worker Scenario					
Ingestion of subsurface soil	No subsurface soil COCs	No subsurface soil COCs	No subsurface soil COCs	1E-05	No subsurface soil COCs
Dermal absorption from subsurface soil	No subsurface soil COCs	No subsurface soil COCs	No subsurface soil COCs	2E-05	No subsurface soil COCs
Ingestion of drinking water	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic
Dermal absorption from drinking water	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic	COCs are not considered carcinogenic
Ingestion of groundwater as drinking water	7E-05	---	---	---	---
Dermal absorption from groundwater as drinking water	4E-08	---	---	---	---
Total Cancer Risk	7E-05	---	---	3E-05	---

Table 15.1-109 Hazard Indices Greater Than 1E+00 for the Main Post Study Area

Land Use Scenario/Exposure Pathway	Buildings 215	Building 228	Building 1057	Building 1151/1152	Building 1167
Institutional Worker Scenario					
	All < 1E+00	All < 1E+00	All < 1E+00	All < 1E+00	All < 1E+00

Table 15.1-110 Cancer Risk Estimates for the Fill Sites and Landfills

Land Use Scenario/Exposure Pathway	Landfill 2	El Polin Spring	Transfer Station	Landfill 4	Fill Site 6	Landfill E
Institutional Worker Scenario						
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario		Not a future land use scenario
Ingestion of drinking water	—	—	—	—	COCs not considered carcinogenic	—
Dermal absorption from drinking water	—	—	—	—	COCs not considered carcinogenic	—
Ingestion of groundwater as drinking water	—	—	—	—	3E-03	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Total Cancer Risk	—	—	—	—	3E-03	—
Recreational Visitor Scenario						
		Not a future land use scenario			Not a future land use scenario	
Ingestion of surface soil	3E-07	—	5E-07	no toxicity values	—	3E-07
Dermal absorption from surface soil	6E-07	—	3E-06	no toxicity values	—	5E-07
Total Cancer Risk	1E-06	—	3E-06	—	—	8E-07
Teen (Swim) Scenario						
	Not a future land use scenario		Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario
Ingestion of surface water (while swimming)	—	2E-07	—	—	—	—
Dermal absorption from surface water	—	NA	—	—	—	—
Total Cancer Risk	—	2E-07	—	—	—	—

Table 15.1-111 Hazard Indices Greater Than 1E+00 for Fill Sites and Landfills (page 1 of 2)

Land Use Scenario/Exposure Pathway	Landfill 2	El Polin Spring	Transfer Station	Landfill 4	Fill Site 6	Landfill E
Institutional Worker Scenario						
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario		Not a future land use scenario
Aluminum						
Ingestion of drinking water	—	—	—	—	not a COC	—
Dermal absorption from drinking water	—	—	—	—	not a COC	—
Ingestion of groundwater as drinking water	—	—	—	—	2E+00	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Aluminum Total	—	—	—	—	2E+00	—
Arsenic						
Ingestion of drinking water	—	—	—	—	not a COC	—
Dermal absorption from drinking water	—	—	—	—	not a COC	—
Ingestion of groundwater as drinking water	—	—	—	—	2E+00	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Arsenic Total	—	—	—	—	2E+00	—
Chromium VI						
Ingestion of drinking water	—	—	—	—	not a COC	—
Dermal absorption from drinking water	—	—	—	—	not a COC	—
Ingestion of groundwater as drinking water	—	—	—	—	4E+00	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Chromium VI Total	—	—	—	—	4E+00	—
Manganese						
Ingestion of drinking water	—	—	—	—	4E-01	—
Dermal absorption from drinking water	—	—	—	—	NA	—
Ingestion of groundwater as drinking water	—	—	—	—	1E+01	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Manganese Total	—	—	—	—	1E+01	—

Table 15.1-111 Hazard Indices Greater Than 1E+00 for Fill Sites and Landfills (page 1 of 2)

Land Use Scenario/Exposure Pathway	Landfill 2	El Polin Spring	Transfer Station	Landfill 4	Fill Site 6	Landfill E
Nickel						
Ingestion of drinking water	—	—	—	—	not a COC	—
Dermal absorption from drinking water	—	—	—	—	not a COC	—
Ingestion of groundwater as drinking water	—	—	—	—	1E+00	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Nickel Total	—	—	—	—	1E+00	—
Vanadium						
Ingestion of drinking water	—	—	—	—	not a COC	—
Dermal absorption from drinking water	—	—	—	—	not a COC	—
Ingestion of groundwater as drinking water	—	—	—	—	2E+00	—
Dermal absorption from groundwater as drinking water	—	—	—	—	NA	—
Vanadium Total	—	—	—	—	2E+00	—
Recreational Visitor Scenario	All < 1E+00	Not a future land use scenario	All < 1E+00	No toxicity values	Not a future land use scenario	
Silver						
Ingestion of surface soil	—	—	—	—	—	2E+00
Dermal absorption from surface soil	—	—	—	—	—	1E-01
Silver Total	—	—	—	—	—	2E+00
Teen (Swim) Scenario	Not a future land use scenario	All < 1E+00	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario

Table 15.1-112 Cancer Risk Estimates for the Miscellaneous Sites (page 1 of 2)

Land Use Scenario/Exposure Pathway	Building 662	Building 680	Building1244	Building 1351	FPCGS 995/996 Non-UST	Lobos Creek	Mountain Lake
Institutional Worker Scenario							
					Not a future land use scenario	Not a future land use scenario	Not a future land use scenario
Ingestion of surface soil	No surface soil COCs	2E-05	No surface soil COCs	No surface soil COCs	---	---	---
Dermal absorption from surface soil	No surface soil COCs	2E-05	No surface soil COCs	No surface soil COCs	---	---	---
Ingestion of subsurface soil	COCs not considered carcinogenic	6E-06	No subsurface soil COCs	1E-08	---	---	---
Dermal absorption from subsurface soil	COCs not considered carcinogenic	9E-06	No subsurface soil COCs	4E-07	---	---	---
Ingestion of drinking water	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	---	---	---
Dermal absorption from drinking water	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	---	---	---
Ingestion of groundwater as drinking water	COCs not considered carcinogenic	---	---	---	---	---	---
Dermal absorption from groundwater as drinking water	COCs not considered carcinogenic	---	---	---	---	---	---
Total Cancer Risk	---	6E-05	---	4E-07	---	---	---
Recreational Visitor Scenario							
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario		Not a future land use scenario	Not a future land use scenario
Ingestion of surface soil	---	---	---	---	3E-05	---	---
Dermal absorption from surface soil	---	---	---	---	5E-05	---	---
Total Cancer Risk	---	---	---	---	8E-05	---	---

[redacted]le 15.1-112 Cancer Risk Estimates for the Miscellaneous [redacted] (page 2 of 2)

Land Use Scenario/Exposure Pathway	Building 662	Building 680	Building1244	Building 1351	FPCGS 995/996 Non-UST	Lobos Creek	Mountain Lake
Teen (Swim) Scenario							
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario		
Ingestion of sediments (while swimming)	---	---	---	---	---	2E-07	COCs not considered carcinogenic
Dermal absorption from sediments	---	---	---	---	---	3E-07	COCs not considered carcinogenic
Ingestion of surface water (while swimming)	---	---	---	---	---	COCs not considered carcinogenic	COCs not considered carcinogenic
Dermal absorption from surface water	---	---	---	---	---	COCs not considered carcinogenic	COCs not considered carcinogenic
Total Cancer Risk	---	---	---	---	---	5E-07	---

Table 15.1-113 Hazard Indices Greater Than 1E+00 for the Miscellaneous Sites

Land Use Scenario/Exposure Pathway	Building 662	Building 680	Building1244	Building 1351	FPCGS 995/996 Non-UST	Lobos Creek	Mountain Lake
Institutional Worker Scenario							
	All < 1E+00	All < 1E+00	All < 1E+00	All < 1E+00	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario
Recreational Visitor Scenario							
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario		Not a future land use scenario	Not a future land use scenario
n-Hexane (TPH-gas fraction)							
Ingestion of surface soil	---	---	---	---	6E-01	---	---
Dermal absorption from surface soil	---	---	---	---	4E-01	---	---
n-Hexane Total	---	---	---	---	1E+00	---	---
Naphthalene (TPH-gas fraction)							
Ingestion of surface soil	---	---	---	---	6E-01	---	---
Dermal absorption from surface soil	---	---	---	---	4E-01	---	---
Naphthalene Total	---	---	---	---	1E+00	---	---
Teen (Swim) Scenario							
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	All < 1E+00	All < 1E+00

Table 15.1-114 Cancer Risk Estimates for the Baker Beach Study Area

Land Use Scenario/Exposure Pathway	Disturbed Area 1a	Disturbed Area 1	Disturbed Area 2	Disturbed Area 3	Disturbed Area 4
Recreational Visitor Scenario					
Ingestion of surface soil	9E-06	3E-07	2E-06	2E-08	2E-07
Dermal absorption from surface soil	1E-05	4E-07	3E-06	3E-09	3E-07
Total Cancer Risk	2E-05	7E-07	5E-06	2E-08	4E-07
Teen (Swim) Scenario					
	Not a future land use scenario		Not a future land use scenario	Not a future land use scenario	Not a future land use scenario
Ingestion of sediments	---	1E-08	---	---	---
Dermal absorption from sediments	---	3E-08	---	---	---
Ingestion of surface water (while swimming)	---	COC not considered carcinogenic	---	---	---
Dermal absorption from surface water	---	COC not considered carcinogenic	---	---	---
Total Cancer Risk	---	4E-08	---	---	---

Table 15.1-115 Hazard Indices Greater Than 1E+00 for the Baker Beach Study Area

Land Use Scenario/Exposure Pathway	Disturbed Area 1a	Disturbed Area 1	Disturbed Area 2	Disturbed Area 3	Disturbed Area 4
Recreational Visitor Scenario					
	COCs not considered noncarcinogenic	All < 1E+00	COCs not considered noncarcinogenic		All < 1E+00
Antimony					
Ingestion of surface soil	---	---	---	1E+00	---
Dermal absorption from surface soil	---	---	---	7E-02	---
Antimony Total	---	---	---	1E+00	---
Teen (Swim) Scenario					
	Not a future land use scenario	All < 1E+00	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario

Table 15.1-116 Cancer Risk Estimates for the Miscellaneous Follow-on Sites

Land Use Scenario/Exposure Pathway	Building 669	Building 1245	Building 1369	Building 1388	Building 1750	EOM
Institutional Worker Scenario						
						Not a future land use scenario
Ingestion of drinking water	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	---
Dermal absorption from drinking water	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	COCs not considered carcinogenic	---
Total Cancer Risk	---	---	---	---	---	---
Recreational Visitor Scenario						
	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	
Ingestion of surface soil	---	---	---	---	---	1E-06
Dermal absorption from surface soil	---	---	---	---	---	3E-06
Total Cancer Risk	---	---	---	---	---	4E-06

Table 15.1-117 Hazard Indices Greater Than 1E+00 for the Miscellaneous Follow-on Sites

Land Use Scenario/Exposure Pathway	Building 669	Building 1245	Building 1369	Building 1388	Building 1750	EOM
Institutional Worker Scenario	All < 1E+00	All < 1E+00	All < 1E+00	All < 1E+00	All < 1E+00	Not a future land use scenario
Recreational Visitor Scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	Not a future land use scenario	All < 1E+00

Table 15.1-118 Pb6 Modeling Results of Lead Soil Levels (mg/kg) Resulting in 10 μg/dl Blood Lead in 95th Percentile of Children

Residential

Concentration of lead in water (mg/L)	3% Bioavailability		20% Bioavailability		44% Bioavailability	
	Plant uptake	No plant uptake	Plant uptake	No plant uptake	Plant uptake	No plant uptake
3	515	2981	274	474	165	217
5	494	2857	263	454	158	208
9	457	2633	243	419	146	192
11	432	2484	230	395	138	181
15	391	2235	208	355	125	163

Recreational

Concentration of lead in water (mg/L)	3%Bioavailability		20% Bioavailability		44% Bioavailability	
	Plant uptake	No plant uptake	Plant uptake	No plant uptake`	Plant uptake	No plant uptake
3	599	7330	422	1166	298	533
5	576	7039	406	1119	287	512
9	535	6518	377	1037	267	474
11	507	6168	358	981	253	448
15	461	5587	325	889	230	406

Table 15.1-119 Summary of HHRA Results for PSF Study Areas and Sites (page 1 of 4)

Site	Comprehensive Risk Assessment Results			Residential PRG Ratio Screening Assessment [b]	
	Scenario[a]	Total Cancer Risk	Chemical Specific Hazard Index	Total Cancer Risk Exceeds 1E-06	Total Hazard Index Exceeds 1E+00
Nike Facility					
Building 1450/1451	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	No	No
Silo/Storage Area	Open Space	1E-04	arsenic 1E+00	Yes	Yes
Nike Facility Groundwater	Institutional	3E-04	manganese 2E+00	Yes	Yes
Crissy Field Study Area					
Building 609	Open Space	no COCs	no COCs	No	COPCs not noncarcinogenic
Building 633	Open Space	no COCs	no COCs	COPCs not carcinogenic	Yes
Building 640/643	Institutional	2E-09	all < 1E+00	Yes	Yes
Building 642	Open Space	no COCs	no COCs	COPCs not carcinogenic	No
Fill Site 7	Open Space	1E-05	all < 1E+00	Yes	Yes
Crissy Field Groundwater	Not Assessed	---	---	Yes	Yes
Proposed Wetlands Restoration Area	Construction	6E-07	all < 1E+00	Yes	Yes
Proposed Wetlands Restoration Area	Open Space	1E-06	all < 1E+00	Yes	Yes
Sewer Lift Station	Open Space	COC not carcinogenic	all < 1E+00	COPCs not carcinogenic	Yes
Building 900s Series Study Area					
Building 920	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	no COPCs	no COPCs
Building 926/927	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	no COPCs	no COPCs
Building 923 Area	Institutional	2E-05	all < 1E+00	Yes	Yes
Building 937	Institutional	7E-08	all < 1E+00	Yes	Yes
Building 949	Open Space	no COCs	no COCs	COPCs not carcinogenic	No
Building 950 Area	Open Space	5E-06	all < 1E+00	Yes	Yes
Building 900s Series Groundwater	Construction	7E-08	all < 1E+00	Yes	Yes

Table 15.1-119 Summary of HHRA Results for PSF Study Areas and Sites (page 2 of 4)

Site	Comprehensive Risk Assessment Results			Residential PRG Ratio Screening Assessment [b]	
	Scenario[a]	Total Cancer Risk	Chemical Specific Hazard Index	Total Cancer Risk Exceeds 1E-06	Total Hazard Index Exceeds 1E+00
DEH Study Area					
Building 267/268/287	Open Space	5E-05	all < 1E+00	Yes	No
Building 269/293	Open Space	1E-04	chlordane 7E+00	Yes	No
Building 283	Open Space	2E-06	COCs non noncarcinogenic	Yes	Yes
Building 286	Open Space	COCs not carcinogenic	all < 1E+00	No	Yes
DEH Study Area Groundwater	Not Assessed	---	---	Yes	Yes
Main Post Study Area					
Building 215	Institutional	7E-05	all < 1E+00	Yes	Yes
Building 228	Commercial/ Office	COCs not carcinogenic [c]	all < 1E+00 [c]	No	COPCs not noncarcinogenic
Building 1057	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	Yes	Yes
Building 1151/1152	Institutional	3E-05	all < 1E+00	Yes	COPCs not noncarcinogenic
Building 1167	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	COPCs not carcinogenic	Yes
Fill Sites and Landfills					
Fill Site 1	Open Space	no COCs	no COCs	Yes	Yes
Landfill 2	Open Space	1E-06	all < 1E+00	Yes	Yes
El Polin Spring	Open Space	2E-07	all < 1E+00	Yes	Yes
Transfer Station	Open Space	3E-06	all < 1E+00	Yes	Yes
Landfill 4	Open Space	no toxicity values	no toxicity values	Yes	Yes
Fill Site 5	Open Space	no COCs	no COCs	Yes	No
Fill Site 6	Institutional	3E-03	aluminum 2E+00 arsenic 2E+00 chromium VI 4E+00 manganese 1E+01 nickel 1E+00 vanadium 2E+00	Yes	Yes

Table 15.1-119 Summary of HHRA Results for PSF Study Areas and Sites (page 3 of 4)

Site	Comprehensive Risk Assessment Results			Residential PRG Ratio Screening Assessment [b]	
	Scenario[a]	Total Cancer Risk	Chemical Specific Hazard Index	Total Cancer Risk Exceeds 1E-06	Total Hazard Index Exceeds 1E+00
Graded Area 9	Open Space	no COCs	no COCs	Yes	No
Landfill E	Open Space	8E-07	silver 2E+00	Yes	Yes
Miscellaneous Sites					
Building 662	Institutional	COCs not carcinogenic	all < 1E+00	No	Yes
Building 680	Institutional	6E-05	all < 1E+00	Yes	COPCs not noncarcinogenic
Building 1244	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	COPCs not carcinogenic	Yes
Building 1351	Industrial	4E-07	all < 1E+00	Yes	Yes
FPCGS	Open Space	8E-05	n-hexane 1E+00 naphthalene 1E+00	Yes	Yes
Lobos Creek	Open Space	5E-07	all < 1E+00	Yes	Yes
Drinking Water Source	Institutional, Industrial, Commercial/ Office	COCs not carcinogenic [c]	all < 1E+00 [c]	No	Yes
Mountain Lake	Open Space	COCs not carcinogenic	all < 1E+00	No	Yes
Baker Beach Study Area					
Disturbed Area 1a	Open Space	2E-05	COCs not noncarcinogenic	Yes	No
Disturbed Area 1	Open Space	7E-07	all < 1E+00	Yes	Yes
Disturbed Area 1 -- teen	Open Space	4E-08	all < 1E+00	Yes	Yes
Disturbed Area 2	Open Space	5E-06	COCs not noncarcinogenic	Yes	No
Disturbed Area 3	Open Space	2E-08	antimony 1E+00	Yes	Yes
Disturbed Area 4	Open Space	4E-07	all < 1E+00	Yes	No
Battery Howe/Wagner					
Building 1287	Open Space	no COCs	no COCs	Yes	Yes

Table 15.1-119 Summary of HHRA Results for PSF Study Areas and Sites (page 4 of 4)

Site	Comprehensive Risk Assessment Results			Residential PRG Ratio Screening Assessment [b]	
	Scenario[a]	Total Cancer Risk	Chemical Specific Hazard Index	Total Cancer Risk Exceeds 1E-06	Total Hazard Index Exceeds 1E+00
Miscellaneous Follow-on Sites					
Building 302	Open Space	no COCs	no COCs	COPCs not carcinogenic	No
Building 669	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	no COPCs	no COPCs
Building 1245	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	No	No
Building 1369	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	COPCs not carcinogenic	Yes
Building 1388	Institutional	COCs not carcinogenic [c]	all < 1E+00 [c]	COPCs not carcinogenic	No
Building 1750	Industrial	COCs not carcinogenic [c]	all < 1E+00 [c]	no COPCs	no COPCs
EOM	Open Space	4E-06	all < 1E+00	Yes	No

--- = not a future land use scenario for the site

[a] Scenarios assessed (industrial or recreational) are future NPS land use classifications from the NPS GMPA.

[b] The residential PRG ratio assessment is very conservative and does not include the detailed evaluation of exposure parameters that was performed in the recreational and industrial risk scenarios assessed in this RI report. The results of the residential PRG ratio assessment are presented for informational purposes and do not contribute to risk assessment conclusions made in this RI report.

[c] The COCs that are assessed come from the PSF water source.

Table 15.2-1 Assessment and Measurement Endpoints for the Ecological Risk Assessment (Page 1 of 2)

ASSESSMENT ENDPOINTS	MEASURE OF EFFECT	MEASUREMENT OF EXPOSURE
Ability of Crissy Field to serve as suitable wetland habitat as a future use for birds, mammals, and aquatic life.	Bioassay data (e.g.., LC50 tests) for numerous species for AWQC	Measured concentrations of COPCs in groundwater relative to estuarine AWQCs.
	Bioassay data (e.g., LC50 or EC50 data) for sediment toxicity criteria	Measured concentrations of COPCs in soil within 15 feet of the surface relative to sediment criteria
	Chronic NOAELs, LOAELs for mortality, reproductive success	Intakes predicted from measured COPCs in soil relative to avian or mammalian TBVs.
Survivability and reproduction of populations of avifauna (passerines, raptors).	Chronic NOAELs, LOAELs for mortality, reproductive success	Intakes predicted from measured concentrations of COPCs in soil, sediment, and surface water relative to avian TBVs.
	Chronic NOAELs, LOAELs for mortality, reproductive success	Intakes predicted from estimated dietary concentrations relative to avian TBVs.
Survivability and reproduction of special status plant communities and the cultural forest.	Growth inhibition or other toxicity information for plants	Measured concentrations of COPCs in soil relative to TBVs for plants.
Survivability and reproduction of populations of aquatic life (i.e., amphibians, fish, benthic invertebrates, or plants).	Bioassay data (e.g.., LC50 tests) for numerous species for AWQC	Measured concentrations of COPCs in surface water at Mountain Lake, Lobos Creek, El Polin Spring, and Baker Beach seep relative to freshwater AWQC.
	Bioassay data (e.g., LC50 or EC50 data) for sediment toxicity criteria	Measured concentrations of COPCs in sediment relative to the NOAA sediment criteria or EPA benchmarks.

NOAEL = no observed adverse effects level
LOAEL = lowest observed adverse effects level
TBV = toxicity benchmark value
LC50 = lethal concentration to 50% of test population
EC50 = effects concentration to 50% of test population
AWQC = USEPA Ambient Water Quality Criteria
COPC = chemical of potential concern
NOAA = National Oceanic and Atmospheric Administration

Table 15.2-1 Assessment and Measurement Endpoints for the Ecological Risk Assessment (Page 2 of 2)

ASSESSMENT ENDPOINTS	MEASURE OF EFFECT	MEASUREMENT OF EXPOSURE
Survivability and reproduction of populations of soil fauna that provide prey for higher trophic level species.	LC50 or EC50 data for soil toxicity	Measured concentrations of COPCs in soil relative to TBVs for soil fauna.
Survivability and reproduction of populations of small mammals that could serve as prey for raptors and other predators	Chronic NOAELs, LOAELs for mortality, reproductive success	Intakes predicted from measured concentrations of COPCs in soil, sediments, and surface water relative to mammalian TBVs.
	Chronic NOAELs, LOAELs for mortality, reproductive success	Intakes predicted from estimated dietary concentrations relative to mammalian TBVs.

NOAEL = no observed adverse effects level
LOAEL = lowest observed adverse effects level
TBV = toxicity benchmark value
LC50 = lethal concentration to 50% of test population
EC50 = effects concentration to 50% of test population
AWQC = USEPA Ambient Water Quality Criteria
COPC = chemical of potential concern
NOAA = National Oceanic and Atmospheric Administration

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 1 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Nike Facility	Disturbed Mixed grasses/forest Ice Plant	None	Flat area used for landscaping material storage. Disturbed habitat.	Plants[1] Soil fauna[2] American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	6.9
Crissy Field (includes Fill Site 7)	Disturbed non-native grasses	Western snowy plover Long-billed curlew California gull	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	24.59
Crissy Field -Future Wetland	Disturbed non-native grasses	Western snowy plover Long-billed curlew California gull	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 15 feet of the surface evaluated as future sediments. Groundwater data used as future surface water.	Aquatic plants Aquatic invertebrates Fish Western Sandpiper Mallard Duck Raccoon	Direct contact Direct contact Direct contact Surface water, diet, sed., dermal Surface water, diet, sed., dermal Diet, sed., dermal	45.94
Crissy Field -Sewer Lift Station 1	Disturbed non-native grasses	None	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.053

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 2 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Crissy Field - Sewer Lift Station 2	Disturbed non-native grasses	None	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants	Direct contact	0.144
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Crissy Field -Building 609	Disturbed non-native grasses	None	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants	Direct contact	0.1088
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Crissy Field - Building 633	Disturbed non-native grasses	None	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants	Direct contact	0.2789
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Crissy Field - Building 640/643	Disturbed non-native grasses	None	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants	Direct contact	1.4087
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 3 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Crissy Field -Building 642	Disturbed non-native grasses	None	Level area near the bay currently covered with sparse grass. Disturbed. Soils within 3 feet of the surface evaluated.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.1094
Bld. 900s	Disturbed/non-native species Bluff scrub* Live oak woodland* Coastal scrub* Serpentine chaparral* Sensitive area*	Raven's manzanita Western snowy plover Long-billed curlew California gull	Steep north-facing slope behind future museum west of 643 Buildings and roads next to bay area. Non-native grasses and native serpentine grassland. Urban disturbed where buildings occur.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon Mallard duck Western sandpiper	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, dermal Soil, dermal	3.62
DEH area	Disturbed non-native grasses	None	Buildings and parking lots slated to be removed and habitat restored. Currently urbanized.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	3.23
Main Post Study Area - Building 228	Disturbed non-native grasses	None	Buildings and parking lots. Urban disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.0464

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 4 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Main Post Study Area - Building 1167	Disturbed non-native grasses	None	Buildings and parking lots. Urban disturbed.	Plants	Direct contact	0.0855
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Main Post Study Area - Building 1151	Disturbed non-native grasses	None	Buildings and parking lots. Urban disturbed.	Plants	Direct contact	0.0814
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Fill Site 1	Disturbed Mixed grasses/forest	Cooper's hawk Northern goshawk Merlin	Big barren area surrounded by housing. Disturbed.	Plants	Direct contact	2.4
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Landfill 2	Disturbed Mixed grasses/forest	Raven's manzanita *Presidio clarkia* Marin dwarf flax Cooper's hawk Northern goshawk Merlin	Sandy soils. Eucalyptus mature forest; open understory; >50% bare ground; shrubs (raspberries). Sensitive serpentine grassland nearby.	Plants	Direct contact	1.1
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 5 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Landfill 2 - El Polin Spring	Aquatic habitat	None	Small spring with several pools approximately 3 feet in diameter and 4 inches deep that drain into a man-made ditch.	Aquatic plants Aquatic invertebrates Amphibians Raccoon American robin Mourning dove Raptors Western harvest mouse	Direct contact Direct contact Direct contact Surface water, diet, dermal Surface water Surface water Surface water Surface water	NA
Transfer Station (Landfill 3)	Disturbed Mixed grasses/forest	Cooper's hawk Northern goshawk Merlin	Flat area within eucalyptus grove. No current vegetation in disturbed area.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	1.01
Landfill 4	Disturbed Mixed grasses/forest	Cooper's hawk Northern goshawk Merlin	Flat area within eucalyptus grove. Minimal understory and herbaceous layer. Disturbed; Cultural forest; non-native herbaceous layer over much of site; lessingia stand; 50% bare ground/litter.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.8
Fillsite 5	Sensitive area* Non-native grasses* Dune scrub*	None	Flat area near Baker Beach. Disturbed; native serpentine grassland on outskirts of area.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.8
Fill Site 6	No COPCs- Site not Evaluated					1.3

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 6 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Graded Area 9	Disturbed non-native plant species	None	Flat area used for soccer field. Adjacent to residential neighborhood. Disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	2.3
Landfill E	Disturbed non-native plant species	None	Baseball field/dog park and housing area. Disturbed open non-native grassland (mowed).	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	3.8
Building 662	Disturbed non-native grasses	None	Flat area with sparse vegetation and a small parking area. Building is at base of steep northeast hill. Slope is forested. Disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.056
Building 680	Non-native plants Forest	Cooper's hawk Northern goshawk Merlin	Northeast sloping area with large trees, shrubs, and grassess. Disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.054

Source: Jones and Stokes, 1994

Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)

* - indicates a native community type as defined by Jones and Stokes, 1994

1 - the term plants is used to refer to the key receptors, grasses and eucalyptus

2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 7 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Building 1351	Disturbed Non-native plants	None	Relatively flat area adjacent to battery and open area. Disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.034
FPCGS	Disturbed	Western snowy plover Long-billed curlew California gull	Buildings and parking lots. Urban disturbed. Rip rap in area between seawall and beach.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.0569
Lobos Creek	Arroyo willow riparian forest* Live oak riparian forest* Sensitive Area*	San Francisco lessingia White-tailed kite Sharp-shinned hawk California yellow warbler	Steep sided narrow ravine with dense vegetation. Perennial flow.	Aquatic plants Aquatic invertebrates Fish and amphibians Mallard duck Western sandpiper Raccoon American robin Mourning dove Raptors Western harvest mouse	Direct contact Direct contact Direct contact Surface water, diet, dermal Surface water, diet, dermal Surface water, diet dermal Surface water Surface water Surface water Surface water	146 ac drainage; creek 1.3 miles long
Mountain Lake	Arroyo willow riparian forest* Freshwater marsh* Dune scrub* Sensitive Area* True aquatic habitat Mixed grasses/forest	Double crested cormorant Osprey White-tailed kite Northern harrier Peregrine falcon Prairie falcon California gull Willow flycatcher Saltmarsh common yellowthroat	Natural lake adjacent to PSF golf course and highway 1. Surface drainage area for golf course.	Aquatic plants Aquatic invertebrates Fish and amphibians Mallard duck Western sandpiper Raccoon American robin Mourning dove Raptors Western harvest mouse	Direct contact Direct contact Direct contact Surface water, diet, dermal Surface water, diet, dermal Surface water, diet, dermal Surface water Surface water Surface water Surface water	4 ac. pond

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 8 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Baker Beach - DA1a	Foredunes* Ice plant Bluff scrub* Sensitive area*	Raven's manzanita San Francisco lessingia *Presidio clarkia* Marin dwarf flax Western snowy plover Long-billed curlew California gull	Steeply sloping bluffs of sepentinite with narrow beach in the north. Broader developed beach with beach and dune fields ot the south. Heavy vegetation. Disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.059
Baker Beach - DA1				Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	1.146
Baker Beach - DA1 Seep				Aquatic plants Aquatic invertebrates Amphibians Raccoon American robin Mourning dove Raptors Western harvest mouse	Direct contact Direct contact Direct contact Sediment, diet, dermal, water Surface water Surface water Surface water Surface water	0.066
Baker Beach -Mounded Refuse Area				Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	0.103

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 9 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Baker Beach - DA2				Plants	Direct contact	0.385
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Baker Beach - DA3				Plants	Direct contact	3.49
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Baker Beach - DA4				Plants	Direct contact	0.52
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Battery Howe/Wagner	Mixed grasses/forest	Cooper's hawk Northern goshawk Merlin	Battery beneath mowed grass area sloping gently to the east. Steep 20' cliff near eastern end of building. Surrounded by residential area. Disturbed.	Plants	Direct contact	3.129
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Building 302	Disturbed Non-native plant species	None	Flat area with buildings and parking lots for golf course access and maintenance. Disturbed.	Plants	Direct contact	0.096
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 10 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Building 669	Disturbed Non-native plant species	None		Plants	Direct contact	
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Building 1245	Mixed grasses/forest	Cooper's hawk Northern goshawk Merlin	East facing hillside adjacent to warehouses and residential area. Disturbed.	Plants	Direct contact	0.0127
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Building 1369	Disturbed Non-native plant species	None	Firing range near base of steep northern slope. Parking area and residential housing in area. Disturbed.	Plants	Direct contact	0.0033
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	
Building 1388	Disturbed Non-native plant species	None	Relatively flat area with storage sheds and parking area. Near bowling center. Disturbed.	Plants	Direct contact	0.02
				Soil fauna	Direct contact	
				American robin	Soil, diet, dermal	
				Mourning dove	Soil, diet, dermal	
				Raptors	Soil, diet, dermal	
				Western harvest mouse	Soil, diet, dermal	
				Valley pocket gopher	Soil, diet, dermal	
				Raccoon	Soil, diet, dermal	

Source: Jones and Stokes, 1994

Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)

* - indicates a native community type as defined by Jones and Stokes, 1994

1 - the term plants is used to refer to the key receptors, grasses and eucalyptus

2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-2 Summary of Ecological Data Pertinent to the Ecological Risk Assessment (Page 11 of 11)

Study Area/Site	Vegetation Types/Native Communities*	Special Status Species Associated with Habitat Type or Observed	Physical Description/Habitat	Key Receptors	Exposure Pathways Evaluated by Site for Each Receptor	Areal Extent (acre)
Crissy Field/East of Mason Shoreline	Disturbed Non-native plant species Foredune	None	Level area near bay currently covered with sparse grass. Disturbed.	Plants Soil fauna American robin Mourning dove Raptors Western harvest mouse Valley pocket gopher Raccoon	Direct contact Direct contact Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal Soil, diet, dermal	31.9538

Source: Jones and Stokes, 1994
Mixed grassland/forest - classification composed of mixed non-native and native grasses, forbs, herbs, trees and shrubs (Jones and Stokes, 1994)
* - indicates a native community type as defined by Jones and Stokes, 1994
1 - the term plants is used to refer to the key receptors, grasses and eucalyptus
2 - the term soil fauna is used to refer to the key receptors, multiple species of invertebrates

Table 15.2-3. Exposure Pathways Quantitatively Evaluated in the Risk Assessment

Taxa	Key Receptor	Exposure Media	Exposure Route
Birds - Passerines	Mourning dove (herbivore)	Surface water	Ingestion
		Soil	Ingestion, dermal
		Plants	Ingestion
	American robin (insectivore)	Surface water	Ingestion
		Soil	Ingestion, dermal
		Soil fauna	Ingestion
Birds - Waterfowl and Waders	Mallard duck	Surface water	Ingestion,
		Sediment	Ingestion, dermal
		Aquatic plants	Ingestion
		Groundwater (Crissy Field only)	Ingestion
	Western sandpiper	Surface water	Ingestion,
		Sediment	Ingestion, dermal
		Aquatic invertebrates	Ingestion
		Groundwater (Crissy Field only)	Ingestion
Small Mammals	Western Harvest Mouse	Surface water	Ingestion
		Soil	Ingestion, dermal
		Soil fauna, plants	Ingestion
	Valley pocket gopher	Soil	Ingestion, dermal
		Plants	Ingestion
Large Mammals (omnivore/carnivore)	Raccoon	Soil	Ingestion
		Sediment	Ingestion, dermal
		Surface Water	Ingestion
		Biota (amphibians, fish, small birds)	Ingestion
Raptors	Red-tailed hawk	Surface water	Ingestion
		Soil	Ingestion, dermal
		Small mammals	Ingestion
	Peregrine falcon	Surface water	Ingestion
		Soil	Ingestion, dermal
		Birds	Ingestion
Fish	Fish	Surface water	Direct contact
Amphibians	Amphibians	Surface water	Direct contact
Invertebrates	Terrestrial Invertebrates	Soil	Direct contact
	Aquatic Invertebrates	Surface water, sedimemt	Direct contact
Plants	Terrestrial Plants	Soil	Direct contact
	Aquatic Plants	Surface water	Direct contact

Table 15.2-4 Summary Statistics for Soils at the Nike Facility

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Arsenic	14	15	93%	1.48	113.64	69.34	69.34
Copper	15	15	100%	10.88	287.172	173.12	173.12
Lead	25	36	69%	2.98	2.14E+03	1114.69	1114.69
Selenium	4	15	27%	0.397	1.17	0.69	0.69
Zinc	20	23	87%	17.9	1.66E+03	554.77	554.77
ORGANICS							
2-Methylnaphthalene	2	15	13%	0.1	0.256	1.19	0.26
Anthracene	3	57	5%	0.22	3.85	1.64	1.64
Benzo [a]anthracene	5	57	9%	0.71	2.51	1.68	1.68
Benzo [a]pyrene	3	57	5%	0.14	1.6	1.58	1.58
Benzo [b]fluoranthene	3	57	5%	0.047	3.44	1.34	1.34
Benzo [k]fluoranthene	1	15	7%	2.12	2.12	0.92	0.92
Bis (2-Ethylhexyl) Phthalate	6	15	40%	0.17	3.97	1.48	1.48
Butylbenzyl phthalate	2	15	13%	0.43	2.7	21.39	2.70
Chrysene	6	57	11%	1.11	2.79	1.58	1.58
Fluoranthene	10	57	18%	0.13	56.2	3.82	3.82
Fluorene	3	57	5%	0.063	2.71	1.34	1.34
Methoxychlor	1	10	10%	0.3	0.3	1.39	0.30
PCB 1260	1	10	10%	0.116	0.116	4.75	0.12
Phenanthrene	9	57	16%	0.049	13.63	3.14	3.14
Phenol	2	15	13%	0.633	1.02	0.50	0.50
ppDDD	1	10	10%	0.04	0.04	0.34	0.04
Pyrene	11	57	19%	0.063	54.6	3.45	3.45
TPH - diesel fraction	5	9	56%	6	1.40E+03	5.64E+04	1.40E+03
Trichlorofluoromethane	1	15	7%	0.006	0.006	1.57	0.01

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-5 Summary Statistics for Soils at Buildings 640 and 643, Consolidated Motor Pool Area, Crissy Field Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Barium	10	10	100%	50.4	330	229	229
Cadmium	4	10	40%	1.36	4.98	6.10	4.98
Chromium	10	10	100%	51	252	207	207
Cobalt	10	10	100%	3.2	39.70	49.43	39.70
Lead	14	19	74%	140	1.43E+03	1.26E+04	1.43E+03
Nickel	10	10	100%	39.5	422	369	369
Zinc	10	10	100%	32.7	407	401	401
ORGANICS							
bis (2-Ethylhexyl) phthalate	4	7	57%	3.40	6.20	180.28	6.20
Butylbenzyl phthalate	2	7	29%	0.05	0.18	7.13	0.18
Chrysene	1	7	14%	0.088	0.088	0.26	0.09
Fluoranthene	1	7	14%	0.161	0.16	0.15	0.15
Phenanthrene	2	7	29%	0.05	0.21	0.19	0.19
Pyrene	1	7	14%	0.07	0.07	0.06	0.06
TPH	6	9	67%	16.18	630	762	630
TPH - diesel fraction	5	5	100%	3	90	4751	90

Note:
NA = not applicable
FOD = frequency of detection

Table 15.2-6 Summary Statistics for Soils at Building 642, Consolidated Motor Pool Area, Crissy Field Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
TPH - gasoline fraction	1	4	25%	99	99	NA	99

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-7 Summary Statistics for Soils in the the Fill Site 7/East of Mason Shoreline Area (page 1 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Antimony	2	29	7%	55.4	70.7	25.62	25.62
Barium	21	29	72%	28.3	804	242.63	242.63
Beryllium	14	29	48%	0.63	1.57	0.77	0.77
Copper	21	29	72%	15.7	143	43.86	43.86
Manganese	19	34	56%	123	2490	8218.895	2490
Mercury	24	34	71%	0.04	2.9	0.25	0.25
ORGANICS							
1,1,2,2-Tetrachloroethane	1	34	3%	0.005	0.005	0.002	0.002
Acenaphthene	1	52	2%	0.312	0.312	0.154	0.154
Acenaphthylene	1	52	2%	0.120	0.120	0.150	0.120
Aldrin	1	33	3%	0.002	0.002	0.006	0.002
alpha-Endosulfan	1	33	3%	0.004	0.004	0.002	0.002
Anthracene	2	52	4%	0.200	0.360	0.299	0.299
Benzo [b] fluoranthene	18	71	25%	0.04	9.54	0.30	0.30
Benzo [k] fluoranthene	4	34	12%	0.05	12	0.11	0.11
Benzo(a)anthracene	7	52	13%	0.05	5.76	0.32	0.32
Benzo(a)pyrene	9	52	17%	0.04	5.63	0.30	0.30
bis (2-Chloroethoxy) methane	4	34	12%	0.16	0.569	0.06	0.06
bis (2-Ethylhexyl) phthalate	2	34	6%	0.40	1.61	0.54	0.54
Chrysene	4	52	8%	0.41	7.47	0.33	0.33
delta-BHC	1	33	3%	0.004	0.004	0.003	0.003
Di-n-butylphthalate	1	29	3%	2.100	2.100	0.657	0.657
Dieldrin	1	33	3%	0.002	0.002	0.011	0.002
Endrin	1	33	3%	0.007	0.007	0.007	0.007
Endrin aldehyde	1	33	3%	3.150	3.150	0.026	0.026
Fluoranthene	6	52	12%	0.09	5.98	0.30	0.30
Fluorene	1	52	2%	0.210	0.210	0.150	0.150
Indeno(1,2,3-cd)pyrene	1	52	2%	0.076	0.076	0.183	0.076
Methoxychlor	1	33	3%	0.062	0.062	0.024	0.024
Phenanthrene	11	52	21%	0.05	2.26	0.29	0.29

Table 15.2-7 Summary Statistics for Soils in the the Fill Site 7/East of Mason Shoreline Area (page 2 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
ppDDE	4	32	13%	0.00	8.49	0.05	0.05
ppDDT	2	32	6%	0.01	4.66	0.03	0.03
Pyrene	17	52	33%	0.04	5.52	0.43	0.43
TPH - diesel fraction	28	34	82%	1.00	380	33.66	33.66
Trichlorofluoromethane	1	34	3%	0.006	0.006	0.003	0.003

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-8 Summary Statistics for Crissy Field Future Wetland Area Soil (page 1 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SOIL LESS THAN 15 FEET DEEP							
INORGANICS							
Antimony	1	37	3%	55.4	55.4	227.30	55.40
Barium	27	37	73%	7.28	804	183	183
Beryllium	20	37	54%	0.126	1.57	0.65	0.65
Copper	29	37	78%	4.55	143	39.04	39.04
Manganese	20	37	54%	99	2490	4370	2490
Mercury	24	37	65%	0.03	2.9	0.23	0.23
ORGANICS							
1,1,2,2-Tetrachloroethane	1	37	3%	0.005	0.005	0.001	0.001
Acenaphthylene	1	37	3%	0.12	0.12	0.029	0.029
Acetone	2	37	5%	0.076	0.122	0.033	0.033
Aldrin	2	39	5%	0.002	0.002	0.003	0.002
alpha-Endosulfan	1	37	3%	0.004	0.004	0.002	0.002
Anthracene	3	37	8%	0.058	0.36	0.033	0.03
Benzo(a)anthracene	6	37	16%	0.047	0.38	0.06	0.06
Benzo(a)pyrene	8	37	22%	0.042	0.35	0.05	0.05
Benzo(b)fluoranthene	5	37	14%	0.038	0.20	0.05	0.05
Benzo(k)fluoranthene	5	37	14%	0.049	0.35	0.04	0.04
Benzyl alcohol	2	37	5%	0.11	0.11	0.10	0.10
bis(2-Chloroethoxy) methane	4	37	11%	0.163	0.31	0.05	0.05
Chrysene	1	37	3%	0.41	0.41	0.14	0.14
delta-Benzenehexachloride	1	39	3%	0.004	0.004	0.002	0.002
Di-n-butylphthalate	3	37	8%	0.067	2.1	0.86	0.86
Dibenzofuran	1	37	3%	0.13	0.13	0.03	0.03
Dieldrin	2	39	5%	0.008	0.012	0.01	0.01
Fluoranthene	2	37	5%	0.38	0.68	0.07	0.07
Fluorene	1	37	3%	0.21	0.21	0.03	0.03
Indeno(1,2,3-cd)pyrene	1	37	3%	0.076	0.08	0.03	0.03

Table 15.2-8 Summary Statistics for Crissy Field Future Wetland Area Soil (page 2 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SOIL LESS THAN 15 FEET DEEP							
ORGANICS							
Methylene chloride	3	37	8%	0.0027	0.03	0.03	0.03
Methylethyl ketone	1	37	3%	0.025	0.03	11.62	0.03
Naphthalene	1	37	3%	0.25	0.25	0.03	0.03
Phenanthrene	11	37	30%	0.045	1.1	0.10	0.10
ppDDE	4	38	11%	0.003	8.49	0.04	0.04
ppDDT	3	38	8%	0.014	4.66	0.03	0.03
Pyrene	13	37	35%	0.038	0.74	0.11	0.11
TPH - diesel fraction	30	46	65%	1	380	24.25	24.25
Trichlorofluoromethane	2	37	5%	0.006	0.008	0.002	0.002

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-9 Summary Statistics for Crissy Field Future Wetland Area Groundwater

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/L)	Maximum Detected Value (ug/L)	ln95th UCL (ug/L)	Exposure Point Concentration (ug/L)
GROUNDWATER							
INORGANICS							
Antimony	2	18	11%	1.37	2.21	11.96	2.21
Barium	18	18	100%	16.00	878.00	486.59	486.59
Beryllium	1	18	6%	9.00	9.00	3.16	3.16
Copper	6	18	33%	13.80	564.00	817.12	564.00
Manganese	14	18	78%	55	2.10E+03	1.71E+03	1.71E+03
Mercury	4	8	50%	0.5	0.80	1.99	0.80
ORGANICS							
2,4-D	3	17	18%	1.10	4.90	30.73	4.90
bis(2-Ethylhexyl)phthalate	2	18	11%	31.60	56.20	29.81	29.81
cis-1,2-Dichloroethylene	2	36	6%	0.36	5.90	0.38	0.38
Chloroethene	2	29	7%	0.80	3.40	0.47	0.47
Chloroform	1	13	8%	2.51	2.51	4.05	2.51
Trichloroethene	1	37	3%	0.70	0.70	0.47	0.47
WATER QUALITY PARAMETERS							
Fluoride	4	13	31%	1.24E+03	5.30E+03	2.22E+06	5.30E+03
Total Dissolved Solids	12	12	100%	6.74E+05	3.26E+06	2.33E+06	2.33E+06

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-10 Summary Statistics for Soils at Building 609, Crissy Field Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Dieldrin	3	3	100%	0.008	0.012	NA	0.012
ppDDE	1	3	33%	0.008	0.008	NA	0.008
ppDDT	2	3	67%	0.014	0.131	NA	0.131

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-11 Summary Statistics for Soils at Building 633, Crissy Field Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	11	18	61%	61	659	1263.98	659

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-12 Summary Statistics for Soils at Crissy Field Sewer Lift Station 1

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	2	2	100%	30.60	603	NA	603
Mercury	1	2	50%	0.17	0.17	NA	0.17
Zinc	2	2	100%	54.20	139	NA	139

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-13 Summary Statistics for Soils at Crissy Field Sewer Lift Station 2.

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Copper	2	2	100%	41.1	165	NA	165
Cyanide	1	2	50%	20.4	20.4	NA	20.4
Mercury	1	2	50%	0.13	0.13	NA	0.13
Selenium	1	2	50%	3.68	3.68	NA	3.68

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-14 Summary Statistics for Soils at Building 900s Series Study Area (page 1 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Antimony	1	42	2%	5.3	5.3	10.68	5.30
Arsenic	25	38	66%	0.41	22	4.11	4.11
Barium	45	45	100%	11.7	959	297	297
Cadmium	12	46	26%	1.1	87.30	4.83	4.83
Copper	45	46	98%	1.5	760	160	160
Cyanide	2	46	4%	0.28	0.53	0.46	0.46
Lead	55	80	69%	6.65	4700	1.86E+03	1.86E+03
Mercury	38	46	83%	0.02	6.82	0.32	0.32
Thallium	1	46	2%	6.9	6.9	27.22	6.90
Zinc	47	47	100%	32.5	1700	453	453
ORGANICS							
1,3-Dimethylbenzene	1	15	7%	0.60	0.60	0.68	0.60
1,4-Dichlorobenzene	1	17	6%	7.35	7.35	0.83	0.83
2-Methylnaphthalene	1	17	6%	0.14	0.14	0.16	0.14
Anthracene	1	20	5%	0.07	0.068	10.77	0.07
Benzo [a] anthracene	2	20	10%	0.07	0.11	0.17	0.11
bis (2-Ethylhexyl) phthalate	6	17	35%	1.65	11.8	9.32	9.32
Chrysene	2	20	10%	0.07	0.139	0.14	0.14
Di-n-butyl phthalate	1	17	6%	3	3	5.98	3.00
Dieldrin	1	17	6%	0.003	0.003	0.89	0.003
Fluoranthene	3	20	15%	0.14	0.254	0.17	0.17
Methylene chloride	2	37	5%	5.53	10	865.04	10
Methylisobutyl ketone	1	37	3%	5.94	5.94	4.43	4.43
Naphthalene	1	20	5%	0.23	0.23	12.25	0.23
PCB 1254	2	25	8%	0.42	3.53	1.57E+04	3.53
PCB 1260	1	25	4%	0.36	0.36	161.82	0.36
Phenanthrene	4	20	20%	0.07	0.39	0.19	0.19

Table 15.2-14 Summary Statistics for Soils at Building 900s Series Study Area (page 2 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
ppDDD	1	17	6%	0.004	0.004	0.58	0.004
ppDDE	2	17	12%	0.004	0.01	0.47	0.01
ppDDT	1	17	6%	0.007	0.007	1.02	0.007
Pyrene	4	20	20%	0.12	0.42	0.50	0.42
Tetrachloroethylene	2	37	5%	0.41	0.49	0.43	0.43
TPH	3	19	16%	100	1.15E+05	2.12E+06	1.15E+05
Trichlorofluoromethane	2	37	5%	0.66	1.68	0.95	0.95

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-15 Summary Statistics for Soils at the DEH Study Area (page 1 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Antimony	3	18	17%	0.13	166	323.75	166
Cadmium	2	16	13%	2.66	4.47	1.23	1.23
Chromium	16	16	100%	11.2	1040	264.32	264.32
Copper	16	16	100%	8.32	384	167.50	167.50
Cyanide	3	17	18%	0.31	0.37	0.26	0.26
Lead	16	17	94%	8.31	1200	420.77	420.77
Manganese	16	16	100%	174	4.65E+03	2.70E+03	2.70E+03
Mercury	6	16	38%	0.07	0.859	0.16	0.16
Selenium	4	16	25%	0.53	2.09	0.67	0.67
Silver	5	16	31%	0.51	6.42	2.02	2.02
Zinc	16	16	100%	24	1500	362	362
ORGANICS							
1,1,1-Trichloroethane	1	18	6%	0.37	0.37	1.91	0.37
1,2-Dichlorobenzene	1	19	5%	0.281	0.281	0.09	0.09
2,4-Dichlorophenol	1	18	6%	0.393	0.393	0.10	0.10
2-Methylnaphthalene	1	18	6%	0.385	0.385	0.14	0.14
9H-Carbazole	1	6	17%	2.21	2.21	5.90	2.21
Acenaphthene	2	18	11%	0.38	1.20	0.15	0.15
Aldrin	6	31	19%	0.02	0.28	11.61	0.28
Benzo [a] pyrene	1	18	6%	0.11	0.11	4.58	0.11
Benzo [b] fluoranthene	1	18	6%	0.11	0.11	0.34	0.11
Benzo [k] fluoranthene	1	18	6%	0.08	0.08	0.12	0.08
Benzo(a)anthracene	4	18	22%	0.08	1.71	0.45	0.45
bis (2-Ethylhexyl) Phthalate	8	18	44%	0.132	6.77	1.54	1.54
Chlordane	15	31	48%	0.014	80	169	80

Table 15.2-15 Summary Statistics for Soils at the DEH Study Area (page 2 of 2)

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
delta-Benzenehexachloride	3	29	10%	0.01	0.056	0.85	0.056
Di-n-butyl phthalate	5	18	28%	0.07	1.6	2.29	1.6
Dieldrin	9	31	29%	0.009	2.36	1.29	1.29
Dimethylphthalate	1	18	6%	0.119	0.119	0.07	0.07
Endosulfan I	3	31	10%	0.398	0.53	3.47	0.53
Endrin	4	29	14%	0.009	4.58	89.14	4.58
Fluoranthene	5	18	28%	0.12	0.456	0.19	0.19
Fluorene	2	18	11%	0.45	1.51	0.21	0.21
Heptachlor	5	31	16%	0.0144	0.77	1.68	0.77
Indeno [1,2,3-c,d] pyrene	1	18	6%	0.04	0.04	17.86	0.04
Lindane	4	31	13%	0.035	0.98	0.37	0.37
Methoxychlor	2	31	6%	0.04	0.06	0.25	0.06
Phenanthrene	4	18	22%	0.078	1.73	0.40	0.40
Phenol	1	18	6%	1.35	1.35	0.12	0.12
pp-DDD	5	31	16%	0.338	2.23	0.64	0.64
pp-DDE	2	31	6%	0.008	0.009	0.03	0.009
pp-DDT	8	31	26%	0.004	5.45	1.13	1.13
Pyrene	4	18	22%	0.10	0.587	0.19	0.19
Toluene	1	18	6%	0.296	0.296	0.64	0.30
TPH - diesel fraction	3	6	50%	8	25	344	25

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-16 Summary Statistics for Soils at Building 228, Main Post Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
bis(2-Ethylhexyl)phthalate	2	3	67%	0.288	0.44	NA	0.44

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-17 Summary Statistics for Soils at Building 1167 Site, Main Post Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	3	3	100%	7.1	586	NA	586
Mercury	3	3	100%	0.253	1.04	NA	1.04
Zinc	3	3	100%	45.6	897	NA	897

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-18 Summary Statistics for Soils at Building 1151 Site, Main Post Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
PCB-1260	3	3	100%	2	11.284	NA	11.284

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-19 Summary Statistics for Soils at Fill Site 1, Fill Sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
bis(2-ethylhexyl)phthalate	1	2	50%	6.2	6.2	NA	6.2
Fluoranthene	1	2	50%	0.05	0.05	NA	0.05

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-20 Summary Statistics for Soils at Landfill 2, Fill sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Barium	5	5	100%	78.8	1040	9403	1040
Copper	5	5	100%	12	202	1166	202
Lead	9	9	100%	45.2	451	416	416
Zinc	5	5	100%	72.6	626	1678	626
ORGANICS							
Chrysene	1	5	20%	0.954	0.954	172.62	0.954
Fluoranthene	2	5	40%	0.079	1.72	799	1.72
MCPP	2	3	67%	3.630	4.85	NA	4.85
Phenanthrene	1	5	20%	2.770	2.77	1074	2.77
ppDDT	3	5	60%	1.150	3.04	1.33E+07	3.04
Pyrene	2	5	40%	0.104	1.84	1466	1.84

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-21 Summary Statistics for El Polin Spring Surface Water, Fill Sites and Landfills.

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (µg/L)	Maximum Detected Value (µg/L)	ln95th UCL (µg/L)	Exposure Point Concentration (µg/L)
SURFACE WATER							
INORGANICS							
Aluminum	2	3	67	467	484	NA	484
Antimony	1	3	33	7.1	7.1	NA	7.1
Barium	3	3	100	67	79.5	NA	79.5
Beryllium	1	3	33	1	1	NA	1
Cadmium	1	3	33	4	4	NA	4
Chromium	3	3	100	27.5	44.8	NA	44.8
Chromium VI	1	1	100	29.7	29.7	NA	29.7
Copper	1	3	33	59.6	59.6	NA	59.6
Cyanide	1	3	33	9	9	NA	9
Iron	3	4	75	117	1760	NA	1760
Lead	2	3	67	3.4	4.34	NA	4.34
Manganese	3	3	100	48.7	118	NA	118
Mercury	1	3	33	0.118	0.118	NA	0.118
Nickel	2	3	67	32.8	36.3	NA	36.3
Vanadium	1	3	33	7	7	NA	7
Zinc	1	3	33	57	57	NA	57
WATER QUALITY PARAMETERS							
Chloride	3	3	100	6.30E+04	8.53E+04	NA	8.53E+04
Fluoride	1	3	33	806	806	NA	806
Nitrate	1	1	100	187	187	NA	187
Nitrite, nitrate-non-specific	2	2	100	1.60E+03	1.90E+03	NA	1.90E+03
Sulfate	3	3	100	1.34E+04	2.10E+04	NA	2.10E+04
Total Dissolved Solids	1	2	50	4.84E+05	4.84E+05	NA	4.84E+05

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-22 Summary Statistics for Soils at the Transfer Station Site, Fill Sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Aluminum	16	16	100%	6.30E+03	5.57E+04	2.41E+04	2.41E+04
Barium	15	16	94%	24.95	543.854	321.56	321.56
Lead	14	16	88%	5.26	559.318	237.69	237.69
Mercury	7	16	44%	0.03	4.269	4.17	4.17
Vanadium	16	16	100%	53.8	141.43	104.36	104.36
ORGANICS							
2-Methylnaphthalene	2	16	13%	0.048	0.089	0.081	0.081
4-Methylphenol	3	16	19%	0.647	1.700	1.045	1.045
Acenaphthene	1	16	6%	0.133	0.133	0.095	0.095
Aldrin	1	16	6%	0.005	0.005	0.003	0.003
Benzo [A] Anthracene	2	16	13%	0.178	2.860	0.375	0.375
beta-Endosulfan	7	16	44%	0.001	0.003	0.004	0.003
bis (2-Ethylhexyl) Phthalate	2	16	13%	9.210	48.800	9.476	9.476
Chlordane	3	16	19%	0.085	0.113	0.061	0.061
Chrysene	1	16	6%	2.890	2.890	0.731	0.731
Dieldrin	8	16	50%	0.002	0.013	0.011	0.011
Endrin	1	16	6%	0.008	0.008	0.007	0.007
Fluoranthene	1	16	6%	0.196	0.196	0.127	0.127
Heptachlor	2	16	13%	0.004	0.006	0.003	0.003
Heptachlor epoxide	1	16	6%	0.002	0.002	0.002	0.002
Isodrin	2	16	13%	0.002	0.004	0.002	0.002
Lindane	2	16	13%	0.004	0.010	0.004	0.004
Phenanthrene	4	16	25%	0.072	22.800	12.018	12.018
ppDDD	4	16	25%	0.004	0.013	0.008	0.008
ppDDE	2	16	13%	0.005	0.007	0.004	0.004
ppDDT	8	16	50%	0.005	0.050	0.048	0.048
Pyrene	3	16	19%	0.405	14.200	8.407	8.407

Note:
FOD = frequency of Detection
NA = not applicable

Table 15.2-23 Summary Statistics for Soils at Landfill 4, Fill Sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	6	7	86%	86.895	474	5050	474
ORGANICS							
Aldrin	2	2	100%	0.002	0.002	NA	0.002
4-Methylphenol	1	2	50%	0.626	0.626	NA	0.626
alpha-Endosulfan	1	2	50%	0.011	0.011	NA	0.011
beta-Endosulfan	2	2	100%	0.001	0.002	NA	0.002
Chlordane	1	2	50%	0.12	0.12	NA	0.12
delta-Benzenehexachloride	1	2	50%	0.027	0.027	NA	0.027
Dieldrin	2	2	100%	0.003	0.011	NA	0.011
Heptachlor	1	2	50%	0.006	0.006	NA	0.006
Heptachlor epoxide	2	2	100%	0.002	0.003	NA	0.003
Isodrin	1	2	50%	0.005	0.005	NA	0.005
Lindane	2	2	100%	0.002	0.007	NA	0.007
ppDDD	1	2	50%	0.012	0.012	NA	0.012
ppDDT	2	2	100%	0.009	0.02	NA	0.02

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-24 Summary Statistics for Soils at Fill Site 5, Fill Sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
beta-Endosulfan	1	2	50%	0.001	0.001	NA	0.001
Dieldrin	1	2	50%	0.004	0.004	NA	0.004
Fluoranthene	1	2	50%	0.08	0.08	NA	0.08
Heptachlor	1	2	50%	0.002	0.002	NA	0.002
ppDDD	1	2	50%	0.006	0.006	NA	0.006
ppDDT	1	2	50%	0.01	0.01	NA	0.01

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-25 Summary Statistics for Soils at Graded Area 9, Fill sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Aluminum	3	3	100%	7.30E+03	4.66E+04	NA	4.66E+04
Vanadium	3	3	100%	52.8	139.83	NA	139.83
ORGANICS							
Acennaphthene	1	3	33%	0.18	0.18	NA	0.18
bis-2-(Ethylhexyl)phthalate	1	3	33%	0.48	0.48	NA	0.48
Benzo(a)anthracene	1	3	33%	0.13	0.13	NA	0.13
Chrysene	1	3	33%	0.12	0.12	NA	0.12
Dieldrin	1	3	33%	0.04	0.04	NA	0.04
Fluoranthene	1	3	33%	0.41	0.41	NA	0.41
Fluorene	1	3	33%	0.174	0.17	NA	0.17
Phenanthrene	1	3	33%	1.19	1.19	NA	1.19
Pyrene	2	3	67%	0.03	0.38	NA	0.38
TPH - diesel fraction	1	1	100%	50	50	NA	50

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-26 Summary Statistics for Soils at Landfill E, Fill Sites and Landfills

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Silver	2	6	33%	1.38	3230	1.87E+14	3230
Mercury	5	6	83%	0.029	0.574	2.39	0.574
Zinc	6	6	100%	43	400	429.81	400
ORGANICS							
delta-Benzene hexachloride	1	5	20%	0.003	0.003	NA	0.003
Endrin aldehyde	1	5	20%	0.005	0.005	0.02	0.005
Lindane	1	5	20%	0.003	0.003	NA	0.003
MCPP	2	3	67%	2.09	4.84	NA	4.84
Toluene	1	6	17%	0.007	0.007	0.01	0.005
ppDDE	1	6	17%	1.05	1.05	1290.04	1.05
ppDDT	2	6	33%	0.537	2.41	1.54E+07	2.41
TPH-diesel fraction	1	6	17%	6	6	4.49	4.49

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-27 Summary Statistics for Soils at Building 662, Miscellaneous Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	5	8	63%	2.33	391.55	7.37E+03	391.55
Zinc	3	3	100%	60.12	645.84	NA	645.84
ORGANICS							
bis (2-Ethylhexyl) phthalate	2	3	67%	1.55	2.23	NA	2.23
Chrysene	1	6	17%	0.20	0.20	17.97	0.20
Fluoranthene	1	6	17%	0.31	0.31	23.15	0.31
Pyrene	1	6	17%	0.48	0.48	6.73	0.48

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-28 Summary Statistics for Soils at Building 680, Miscellaneous Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
PCB 1260	7	7	100%	0.72	13.59	52.04	13.59

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-29 Summary Statistics for Soils at Building 1351, Miscellaneous Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Barium	10	10	100%	25.06	224	156	156
Cadmium	3	10	30%	5.01	17.6	76.47	17.60
Copper	10	10	100%	5.95	207	83.59	83.59
Lead	13	16	81%	17.46	473	1440	473
Manganese	10	10	100%	134.14	582	427	427
Mercury	4	10	40%	0.05	0.423	0.16	0.16
Zinc	10	10	100%	29.46	499	335	335
ORGANICS							
4-Methylphenol	1	10	10%	14.19	14.19	7.00	7.00
bis (2-Ethylhexyl) phthalate	4	10	40%	1.15	44.71	61.31	44.71
Chrysene	1	10	10%	0.13	0.13	0.26	0.13
Fluoranthene	2	10	20%	0.06	0.07	0.11	0.07
Methylethyl ketone	1	10	10%	6.30	6.30	2.50	2.50
Pyrene	2	10	20%	0.15	1.59	0.77	0.77
Toluene	4	10	40%	0.23	0.53	1.00	0.53

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-30 Summary Statistics for Soils at Fort Point Coast Guard Station, Miscellaneous Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	9	12	75%	3.95	387.295	1277.10	387.30
Zinc	8	9	89%	73.108	763.125	2041.63	763.13
ORGANICS							
1,3-Dimethylbenzene	1	7	14%	0.721	0.721	0.43	0.43
Benzo [a] anthracene	3	12	25%	0.55	13.19	8.44	8.44
Benzo [b] fluoranthene	1	12	8%	29.07	29.07	210.45	29.07
Benzo [g,h,i] perylene	1	12	8%	10.43	10.43	5.85	5.85
Benzo [k] fluoranthene	1	12	8%	29.62	29.62	75.15	29.62
Chrysene	2	12	17%	0.92	20.35	15.06	15.06
Dibenz [a,h] anthracene	1	12	8%	4.29	4.29	59.28	4.29
Fluoranthene	6	12	50%	0.449	53.69	594.66	53.69
Fluorene	1	12	8%	8.167	8.167	12.33	8.17
Indeno [1,2,3-c,d] pyrene	1	12	8%	0.31	0.31	1.15E+04	0.31
Phenanthrene	5	11	45%	0.44	49.93	621.21	49.93
ppDDT	1	9	11%	0.05	0.05	10.89	0.05
Pyrene	4	12	33%	0.96	45.34	859.14	45.34
Toluene	6	9	67%	0.22	0.73	1.64E+04	0.73
TPH - diesel fraction	2	5	40%	1	380	2.59E+08	380.00
TPH - total	7	10	70%	120.97	2.27E+04	1.66E+09	2.27E+04
Trichlorofluoromethane	1	9	11%	0.31	0.31	52.38	0.31
Xylenes	1	9	11%	1.08	1.08	6.82E+03	1.08

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-31 Summary Statistics for Lobos Creek Sediments and Surface Water, Miscellaneous Sites

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value	Maximum Detected Value	ln95 Percent UCL	Exposure Point Concentration
SURFACE WATER				(µg/L)	(µg/L)	(µg/L)	(µg/L)
INORGANICS							
Barium	6	6	100	7.15	22.60	25.02	22.60
Boron	1	5	20	355.92	356	346	346
Iron	2	6	33	211.37	3.18E+03	5.32E+04	3.18E+03
Lead	1	6	17	8.55	8.55	6.39	6.39
Manganese	4	6	67	55.51	236	1.86E+04	236
Vanadium	1	6	17	13	13	13.95	13
ORGANICS							
Bis(2-ethylhexyl)phthalate	1	6	17	1.10	1.10	6.56	1.10
WATER QUALITY PARAMETERS							
Chloride	6	6	100	4.88E+04	7.60E+04	6.87E+04	6.87E+04
Fluoride	5	6	83	481.98	1027	793	793
Nitrite, nitrate-non-specific	4	4	100	2.80E+03	1.48E+04	NA	1.48E+04
Sulfate	5	5	100	5.34E+04	6.40E+04	6.40E+04	6.40E+04
Total dissolved solids	6	6	100	3.40E+05	3.80E+05	3.77E+05	3.77E+05
SEDIMENT				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
INORGANICS							
Arsenic	1	3	33	14.62	14.62	NA	14.62

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-32 Summary Statistics for Mountain Lake Sediments and Surface Water, Miscellaneous Sites

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value	Maximum Detected Value	95 Percent UCL	Exposure Point Concentration
SURFACE WATER				(µg/L)	(µg/L)	(µg/L)	(µg/L)
INORGANICS							
Barium	2	2	100	46.5	56.4	NA	56.4
Cyanide	1	1	100	8.14	8.14	NA	8.14
Iron	2	2	100	214.59	492	NA	492
Lead	1	2	50	9.09	9.09	NA	9.09
Manganese	2	2	100	306	377.76	NA	377.76
Vanadium	1	2	50	13	13	NA	13
ORGANICS							
Bis(2-ethylhexyl)phthalate	1	2	50	1.3	1.3	NA	1.3
TPH-diesel fraction	2	4	50	51	60	NA	60
TPH-gasoline fraction	1	1	100	1040	1040	NA	1040
PESTICIDES							
Heptachlor	1	2	50	0.009	0.009	NA	0.009
WATER QUALITY PARAMETERS							
Chloride	2	2	100	8.60E+04	1.42E+05	NA	1.42E+05
Fluoride	1	2	50	877.45	877.45	NA	877.45
Nitrite, nitrate-non-specific	2	2	100	372.09	460	NA	460
Sulfate	2	2	100	4.09E+04	4.41E+04	NA	4.41E+04
Total Dissolved Solids	2	2	100	3.92E+05	6.20E+05	NA	6.20E+05
SEDIMENT				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
PESTICIDES							
Aldrin	1	4	25	0.003	0.003	NA	0.003
Lindane	1	4	25	0.003	0.003	NA	0.003

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-33 Summary Statistics for Soils at Disturbed Area 1 Outside Mounded Landfill Material Area, Baker Beach Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Antimony	5	9	56%	85.4	123	378.63	123
Selenium	8	9	89%	0.446	2.37	5.73	2.37
ORGANICS							
2-Methylnaphthalene	1	9	11%	0.039	0.039	0.02	0.02
bis (2-Ethylhexyl) phthalate	1	9	11%	0.62	0.62	0.25	0.25
Trichlorofluoromethane	3	9	33%	0.004	0.02	0.02	0.02
Methylene chloride	4	9	44%	0.083	0.23	0.79	0.23
delta-Benzenehexachloride	1	9	11%	0.004	0.004	0.002	0.002
Dieldrin	4	9	44%	0.007	0.067	0.39	0.07
Di-n-butyl phthalate	2	9	22%	1.4	1.6	1.13	1.13
Endrin	2	9	22%	0.004	0.005	0.00	0.003
Endrin aldehyde	1	9	11%	0.006	0.006	0.00	0.003
Fluorene	1	9	11%	0.17	0.17	0.06	0.06
Lindane	3	9	33%	0.003	0.005	0.00	0.005
PCB 1254	1	9	11%	0.394	0.394	0.14	0.14
Phenanthrene	2	9	22%	0.056	0.082	0.06	0.06
ppDDD	3	9	33%	0.004	0.015	0.01	0.008
ppDDE	6	9	67%	0.004	0.028	0.05	0.028
ppDDT	6	9	67%	0.014	0.17	6.46	0.17
Pyrene	4	9	44%	0.035	0.12	0.14	0.12
TPH-diesel fraction	9	9	100%	9	28	24.40	24.40

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-34 Summary Statistics for Soils at Disturbed Area 1 Mounded Landfill Material Area, Baker Beach Study Area.

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SURFACE SOIL							
INORGANICS							
Lead	8	8	100%	160	3700	8575	3700
Zinc	8	8	100%	160	13100	28109	13100

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-35 Summary Statistics for Surface Water and Sediment at Disturbed Area 1 Seep, Baker Beach Study Area

COPC	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value	Maximum Detected Value	ln95th UCL	Exposure Point Concentration
SURFACE WATER				(µg/L)	(µg/L)	(µg/L)	(µg/L)
INORGANICS							
Barium	1	1	100	101	101	NA	101
Manganese	1	1	100	187	187	NA	187
Vanadium	1	1	100	11.8	11.8	NA	11.8
Zinc	1	1	100	29.3	29.3	NA	29.3
WATER QUALITY PARAMETERS							
Chloride	1	1	100	2.00E+05	2.00E+05	NA	2.00E+05
Nitrite, nitrate-non-specific	1	1	100	199	199	NA	199
Sulfate	1	1	100	7.80E+04	7.80E+04	NA	7.80E+04
Total Dissolved Solids	1	1	100	9.73E+05	9.73E+05	NA	9.73E+05
SEDIMENT				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
INORGANICS							
Barium	1	1	100	1.29E+03	1.29E+03	NA	1.29E+03
Copper	1	1	100	387	387	NA	387
Lead	1	1	100	3.70E+03	3.70E+03	NA	3.70E+03
Silver	1	1	100	6.09	6.09	NA	6.09
Zinc	1	1	100	3.30E+03	3.30E+03	NA	3.30E+03
ORGANICS							
TPH-diesel fraction	1	1	100	6	6	NA	6
PCB 1260	1	1	100	0.126	0.126	NA	0.126
ppDDE	1	1	100	0.006	0.006	NA	0.006

Note:
COPC = chemical of potential concern
FOD = frequency of detection

Table 15.2-36 Summary Statistics for Soils at Disturbed Area 1a, Baker Beach Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
Acenaphthylene	1	4	25%	0.3	0.3	NA	0.3
Benzo [a] anthracene	1	4	25%	0.6	0.6	NA	0.6
Benzo [a] pyrene	1	4	25%	2	2	NA	2
Benzo [b] fluoranthene	2	4	50%	0.15	2	NA	2
Benzo [g,h,i] perylene	1	4	25%	3	3	NA	3
delta-Benzenehexachloride	1	4	25%	0.007	0.007	NA	0.007
Di-n-butyl phthalate	1	4	25%	3.2	3.2	NA	3.2
Fluoranthene	1	4	25%	2	2	NA	2
Heptachlor epoxide	1	4	25%	0.023	0.023	NA	0.023
Indeno [1,2,3-c,d] pyrene	1	4	25%	2	2	NA	2
Lindane	2	4	50%	0.004	0.008	NA	0.008
Phenanthrene	3	4	75%	0.051	1	NA	1
Pyrene	3	4	75%	0.053	2	NA	2
TPH - diesel fraction	4	4	100%	5	48	NA	48

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-37 Summary Statistics for Soils at Disturbed Area 2, Baker Beach Study Area.

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
alpha-Benzene hexachloride	1	5	20%	0.004	0.004	0.06	0.004
Acenaphthylene	1	5	20%	0.10	0.10	0.17	0.10
Anthracene	2	5	40%	0.06	0.08	0.21	0.08
Benzo(a)anthracene	3	5	60%	0.08	0.52	69.75	0.52
Benzo(a)pyrene	3	5	60%	0.11	0.54	38.30	0.54
Benzo(b)fluoranthene	3	5	60%	0.13	0.47	37.29	0.47
Benzo(k)fluoranthene	3	5	60%	0.14	0.38	31.43	0.38
Benzene	1	5	20%	0.002	0.002	0.002	0.002
Trichlorofluoromethane	1	5	20%	0.005	0.005	0.007	0.005
Chrysene	1	5	20%	0.47	0.47	0.56	0.47
Endrin	1	5	20%	0.006	0.006	0.10	0.006
Fluoranthene	3	5	60%	0.26	0.56	13.95	0.56
Fluorene	1	5	20%	0.05	0.05	0.05	0.05
Indeno(1,2,3-cd)pyrene	2	5	40%	0.05	0.09	0.18	0.09
Naphthalene	2	5	40%	0.05	0.05	0.08	0.05
Phenanthrene	2	5	40%	0.15	0.44	49.05	0.44
ppDDE	1	5	20%	0.012	0.01	0.17	0.01
ppDDT	1	5	20%	0.022	0.02	0.41	0.02
Pyrene	2	5	40%	0.22	0.91	1399.61	0.91
TPH - diesel fraction	5	5	100%	11.00	58.00	75.39	58.00
Xylene	1	5	20%	0.0040	0.00	0.0045	0.004

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-38 Summary Statistics for Soils at Disturbed Area 3, Baker Beach Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Antimony	2	10	20%	51	156	60.39	60.39
Chromium	10	10	100%	38.4	1590	656.22	656.22
Cobalt	8	8	100%	20	279	161.30	161.30
Iron	10	10	100%	9.50E+03	9.00E+04	5.08E+04	5.08E+04
Lead	15	18	83%	1.09	1000	1565.313	1000
Nickel	10	10	100%	24.6	4.30E+03	3.02E+03	3.02E+03
Zinc	14	18	78%	29.8	2.90E+03	715.6833	715.68
ORGANICS							
bis (2-Ethylhexyl) phthalate	3	10	30%	0.58	3.3	2.49	2.49
Benzo [a] anthracene	1	10	10%	0.06	0.06	0.05	0.05
Benzo [k] fluoranthene	1	10	10%	0.04	0.04	0.04	0.04
Dieldrin	4	10	40%	0.008	0.02	0.01	0.01
Endrin	1	10	10%	0.006	0.006	0.004	0.004
Fluoranthene	2	10	20%	0.11	0.20	0.14	0.14
Heptachlor epoxide	1	10	10%	0.004	0.004	0.003	0.003
Phenanthrene	5	10	50%	0.05	0.30	0.31	0.30
ppDDD	3	10	30%	0.007	0.02	0.009	0.009
ppDDT	6	9	67%	0.006	0.05	0.06	0.05
PCB-1254	1	10	10%	0.20	0.20	0.08	0.08
Pyrene	6	10	60%	0.06	0.60	0.71	0.60
TPH - diesel fraction	10	10	100%	5	50	33.96	33.96

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-39 Summary Statistics for Soils at Disturbed Area 4, Baker Beach Study Area

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
Chlordane	2	10	20%	0.30	0.4	0.61	0.4
ppDDT	3	10	30%	0.006	0.1	0.14	0.1
TPH - diesel fraction	10	10	100%	3	140	108.22	108.22

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-40 Summary Statistics for Soils at Battery Howe/Wagner

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Antimony	1	12	8%	107	107	25	25
Chromium	8	8	100%	57	590	302	302
Nickel	8	8	100%	48.5	1370	828	828
ORGANICS							
Di-n-butylphthalate	1	8	13%	1.1	1.1	0.54	0.54
Phenanthrene	1	8	13%	0.14	0.14	0.07	0.07
Pyrene	1	8	13%	0.14	0.14	0.07	0.07
TPH - diesel fraction	8	8	100%	1	19	19	19

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-41 Summary Statistics for Soils at Building 302, Miscellaneous Follow-on RI Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Cyanide	3	4	75%	0.51	0.78	NA	0.78
Mercury	2	4	50%	0.17	2.42	NA	2.42
ORGANICS							
2,4 - Dichlorophenoxyacetic acid	1	4	25%	0.04	0.04	NA	0.04
Dicamba	1	4	25%	0.05	0.05	NA	0.05

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-42 Summary Statistics for Soils at Building 1245, Miscellaneous Follow-on Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
Di-n-butylphthalate	3	4	75%	0.08	0.09	NA	0.09
Dieldrin	3	4	75%	0.00	0.01	NA	0.01
Fluoranthene	2	4	50%	0.08	0.09	NA	0.09
ppDDE	3	4	75%	0.00	0.01	NA	0.01
ppDDT	3	4	75%	0.01	0.08	NA	0.08
Pyrene	2	4	50%	0.06	0.07	NA	0.07

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-43 Summary Statistics for Soils at Building 1369, Miscellaneous Follow-on RI Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
INORGANICS							
Lead	5	5	100%	120	365	436.34	365

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-44 Summary Statistics for Soils at Building 1388, Miscellaneous Follow-on RI Sites

Analyte	No. of Detects	No. of Samples	Percent FOD	Minimum Detected Value (ug/g)	Maximum Detected Value (ug/g)	ln95th UCL (ug/g)	Exposure Point Concentration (ug/g)
SHALLOW SOIL							
ORGANICS							
TPH	1	6	17%	100	100	1962	100

Note:
FOD = frequency of detection
NA = not applicable

Table 15.2-45 Exposure Parameters for the Ecological Receptors

Receptor		Body Weight (g)	Surface Area (cm2)	Dietary Ingestion Rate (kg/kg bw/d)	Water Ingestion Rate (L/kg bw/d)	Home Range (ha)	Soil Ingestion (Percent of Diet)	Soil Ingestion Rate (kg/kg bw/d)	Habitat	Feeding Habits
Plants		NA	NA	NA	NA	NA	NA	NA	All	NA
Soil Fauna		NA	NA	NA	NA	NA	NA	NA	Upland	NA
Aquatic Life, Amphibians		NA	NA	NA	NA	NA	NA	NA	Surface Water	NA
Western Harvest Mouse	Minimum	14.0	86.0	0.070	0.0556	0.01	2.0	0.001	Upland	70% plants 30% invertebrates
	Maximum	31.5	91	0.450	0.3400	0.9	2.4	0.011		
	Mean	20.5	88.5	0.192	0.1471	0.1	2.2	0.004		
	Std. dev.	4.1	3.5	0.094	0.0850	0.2	0.3	0.0003		
	95th percentile	29.0	93.4	0.372	0.2512	0.4	2.4	0.009		
Valley Pocket Gopher	Minimum	198.4	139.0	0.051	NA	0.1	2.0	0.001	Upland	100% vegetation
	Maximum	311.8	161.0	0.062	NA	0.1	2.4	0.001		
	Mean	255.1	147.7	0.056	NA	0.1	2.2	0.001		
	Std. dev.	80.2	11.7	0.008	NA	NA	0.3	0.00002		
	95th percentile	306.1	160.9	0.061	NA	0.10	2.38	0.001		
Raccoon	Minimum	3670.0	3414.0	0.013	0.0820	39.0	9.4	0.001	Wetland	Aquatic Invertebrates
	Maximum	7600.0	3796.0	0.017	0.0830	2560.0	9.4	0.002		
	Mean	5597.8	3605.0	0.015	0.0825	630.3	9.4	0.001		
	Std. dev.	1247.2	270.1	0.003	0.0007	987.8	NA	NA		
	95th percentile	7264.0	3979.4	0.017	0.0830	2121.5	9.4	0.002		
American Robin	Minimum	55.0	182.0	0.750	0.0136	0.11	9.3	0.0698	Upland	50% invertebrates 50% vegetation
	Maximum	86.2	198.0	1.520	0.1400	0.4	10.4	0.1581		
	Mean	77.7	190.0	1.053	0.0564	0.2	9.9	0.1038		
	Std. dev.	7.8	11.3	0.410	0.0724	0.1	0.8	0.0032		
	95th percentile	84.8	205.7	1.457	0.1276	0.4	10.3	0.1507		
Mourning Dove	Minimum	85.0	314.0	0.18	0.0108	0.01	9.3	0.02	Upland	100% Vegetation
	Maximum	170.0	362.0	0.20	0.0136	0.42	10.4	0.02		
	Mean	127.5	338.0	0.19	0.0122	0.11	9.9	0.02		
	Std. dev.	60.1	33.9	0.01	0.0020	0.10	0.8	0.00		
	95th percentile	165.8	385.0	0.20	0.0135	0.24	10.3	0.02		

Table 15.2-45 Exposure Parameters for the Ecological Receptors

Receptor		Body Weight (g)	Surface Area (cm2)	Dietary Ingestion Rate (kg/kg bw/d)	Water Ingestion Rate (L/kg bw/d)	Home Range (ha)	Soil Ingestion (Percent of Diet)	Soil Ingestion Rate (kg/kg bw/d)	Habitat	Feeding Habits
Spotted Sandpiper	Minimum	37.9	113.0	0.116	0.1600	0.25	7.3	0.008	Wetland	Aquatic Invertebrates
	Maximum	47.1	131.0	0.122	0.1700	0.25	30.0	0.037		
	Mean	42.5	122.0	0.119	0.1650	0.25	18.1	0.021		
	Std. dev.	6.5	12.7	0.005	0.0071	NA	9.3	0.000		
	95th percentile	46.6	139.6	0.122	0.1695	0.25	28.2	0.034		
Mallard Duck	Minimum	1043.0	1030.0	0.051	0.0570	111.00	3.3	0.002	Wetland	Aquatic Invertebrates
	Maximum	1246.0	1148.0	0.054	0.0580	620.00	3.3	0.002		Aquatic Plants
	Mean	1161.6	1089.0	0.052	0.0575	434.75	3.3	0.002		
	Std. dev.	83.7	83.4	0.002	0.0007	224.58	NA	NA		
	95th percentile	1243.3	1204.6	0.053	0.0580	608.00	3.3	0.002		
Peregrine Falcon	Minimum	103.0	242.0	0.290	0.1100	13.1	2.800	0.008	Upland	Invertebrates
	Maximum	138.0	267.0	0.290	0.1200	202.0	2.800	0.008		
	Mean	119.1	254.5	0.290	0.1150	106.3	2.800	0.008		
	Std. dev.	11.1	17.7	NA	0.0071	81.1	NA	NA		
	95th percentile	135.3	279.0	0.290	0.1195	192.4	2.800	0.008		
Red-tailed Hawk	Minimum	957.0	1021.0	0.086	0.0550	160.0	2.800	0.002	Upland	Rodents
	Maximum	1235.0	1147.0	0.110	0.0590	1770.0	2.800	0.003		Birds
	Mean	1114.1	1084.0	0.099	0.0570	875.7	2.800	0.003		
	Std. dev.	115.1	89.1	0.012	0.0028	819.7	NA	NA		
	95th percentile	1231.2	1207.5	0.109	0.0588	1662.7	2.800	0.003		

Source:

Body Weight	*EPA, 1993d*	***Habitat - birds***	*Udvardy, 1977*
Dietary Ingestion Rate	*EPA, 1993d*	***Feeding Habits-mammals***	*Burt and Grossenheider, 1980*
Water Ingestion Rate	*EPA, 1993d*	***Feeding Habits-birds***	*Udvardy, 1977*
Home Range	*EPA, 1993d*	***Surface Area***	*EPA, 1993d*
Soil Ingestion Rate	*Beyer et al., 1994*		
Habitat -mammals	*Burt and Grossenheider, 1980*		

ha = hectare
NA = not available

Table 15.2-46 Final Bioaccumulation Factors for Terrestrial Receptors at PSF

Analyte	Plant			Invertebrate			Bird			Mammal		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Cadmium	0.40	0.04	2.24	3.72	1.25	10.57	0.002	0.001	0.005	0.0024	0.0001	0.0242
Chlordane	0.02	0.004	0.18	5.00	5.00	5.00	0.352	0.049	1.427	0.04	0.03	0.08
Copper	0.55	0.13	2.24	0.88	0.01	2.32	0.001	0.001	0.001	0.15	0.06	0.35
Dieldrin	0.03	0.003	0.12	4.29	1.33	7.20	0.477	0.177	4.917	0.02	0.01	0.06
Heptachlor/hepta-chlor epoxide	0.086	0.003	2.863	1.67	1.67	1.67	2.250	1.230	4.550	0.11	0.05	0.32
Lead	0.13	0.02	2.09	0.07	0.00	36.52	0.0003	0.0001	0.0005	0.0008	0.000001	0.1905
Mercury	0.0020	0.0005	0.0090	1.44	0.88	2.35	1.214	0.103	7.690	1.24	0.57	4.40
PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs	0.01	0.003	0.08	2.46	1.18	10.44	0.227	0.183	0.282	1.43	0.66	2.94
ppDDT	0.01	0.003	0.08	1.98	0.83	7.29	0.905	0.030	37.333	0.45	0.22	0.97
Selenium	9.47	0.093	244.40	7.84	1.54	53.33	0.013	0.002	0.035	0.013	0.002	0.035
Zinc	0.55	0.13	2.24	0.66	0.12	1.97	0.001	0.0001	0.011	0.001	0.000	0.011

Note: since distributions lognormal, the geometric mean is used to represent the central tendency.
Use zinc values for birds, plants to represent copper
Use avian selenium, zinc BAFs to represent BAFs for mammals
Use ppDDT plant BAFs for PCBs

Table 15.2-47 Final Bioconcentration Factors for Aquatic Receptors at PSF

	Plant			Invertebrate			Fish		
Analyte	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Cadmium	322.5	119.4	910.0	110.8	20.0	3000.0	8.0	NA	NA
Chlordane	1.0	0.5	2.0	0.4	0.1	10.0	1.2	NA	NA
Copper	995.0	100.0	4830.0	612.2	166.7	3800.0	87.3	60.0	127.0
Dieldrin	1816.5	278.0	7480.0	1342.5	9.0	114935.0	1403.2	55.0	6145.0
Heptachlor	18.0	NA	NA	41.5	7.0	5200.0	595.7	314.0	1130.0
HPCLE	18.0	NA	NA	41.5	7.0	5200.0	595.7	314.0	1130.0
Lead	53572.4	41000.0	70000.0	1380.3	75.0	197000.0	69.8	65.0	75.0
Mercury	486.8	104.5	2435.0	95.8	20.0	579.1	163.6	4.0	3400.0
PAHs	79.4	25.0	140.0	206.1	8.2	8000.0	107.8	85.0	140.0
PCBs	0.99	0.70	1.40	6.08	3.33	9.00	913.7	2.5	9693932.7
ppDDD	559.4	0.1	126400.0	3896.5	25.0	65000.0	2358.1	5.0	829300.0
ppDDE	559.4	0.1	126400.0	3896.5	25.0	65000.0	2358.1	5.0	829300.0
ppDDT	559.4	0.1	126400.0	3896.5	25.0	65000.0	2358.1	5.0	829300.0
Selenium	2224.9	900.0	5500.0	44.7	21.9	91.2	NA	NA	NA
Zinc	3385.2	150.0	65000	1899	300	27300	282	11	1250

Note: since distributions lognormal, the geometric mean is used to represent the central tendency.

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Acenaphthene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Acenaphthylene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	0.5	5.0	mallard	5	2	NA	5	LOAEL for mortality in a 30-day study	Hudson et al., 1984	See dieldrin
Aldrin	1.0	NA	chicken	1	1	0.97	NA	NEL for mortality in 8 week study. Converted with 0.097 g/g bw/d from Wiseman, 1987.	Ritchey et al., 1972	See dieldrin
alpha-BHC	2.4	118.0	Ring-necked pheasant	see beta-BHC	see beta-BHC	see beta-BHC	see beta-BHC	see beta-BHC	see beta-BHC	see BBHC
alpha-Chlordane	1.1	2.1	Redwinged blackbird	1	2	2.13	NA	NOAEL for mortality	Opresko et al., 1993	Use as is NOAEL for passerine bird.
alpha-Chlordane	1.2	10.4	Mammals	1	1	1.2	10.4	NOAEL for hematology, clinical chemistry, body weight, mortality. Some histopathological liver effects noted.	USEPA, 1987c	
Aluminum	963.0	1926.0	Ring dove	1	1	963	NA	1000 ppm in diet had no effect on reproduction or growth over 4 month period when Ca and P levels in diet normal. Convert with mean of 0.963 g/g/d for robin, marsh wren from EPA, 1993d.	Carriere et al., 1986	Only avian value
Aluminum	8.0	40.0	Rat	5	1	40	NA	NEL for growth impairment (est. from 6 mg. amount given to 150 gm. rat.)	Venugopal and Luckey, 1978	Use this as NEL; higher dietary levels cause effects.
Aluminum	40.0	200.0	Lab animals	5	1	NA	200	Growth retardation, alter carbohydrate and phosphate metabolism. 1-2% in diet stimulates growth in other studies. Use this as dose unlikely to affect populations.	Friberg et al., 1979	
Aluminum	1.0	60.0	Sheep	5	1	5.04	60	Dietary levels of 2000 ppm for 56 days decreased weight gain. Convert with 0.03 g/g/d estimated from same study. Control diet 168 ppm. Ruminants likely more sensitive than nonruminants.	Valdivia et al., 1982	
Aluminum	48.0	NA	Cow	1	1	48	NA	Dietary levels of 1200 ppm did not alter serum or tissue P levels. Convert with 0.04 g/g/d from Sax, 1984.	Valdivia et al., 1978	
Anthracene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Antimony	1.0	10.0	Dog, cat	5	2	NA	10	10 mg/kg bw/day caused overt toxicity in dogs and cats.	Friberg et al., 1979	
Antimony	1.8	1.8	rat	1	1	NA	1.78	5 mg/L (converted with ingestion rate of 0.356 L/kg bw/d from Perry et al., 1989) decreased lifespan by 15% in rats. Unlikely to affect population.	Friberg et al., 1979	Clear endpoint relating to effects on assessment endpoints. Use as LOAEL but w/o toxicity UFs.
Arsenic	14.0	42.0	Mallard	1	1	14	42	NOAEL @ 100 ppm in diet for behavior (LOAEL was 300 ppm for behavior and growth). Converted with 0.14 kg diet/kg bw from Camardese et al., 1990.	Camardese et al., 1990; Whitworth et al., 1991	Only avian value.
Arsenic	3.8	22.5	Rat	1	1	3.8	22.5	NOAEL (LOAEL was 22.5 mg/kg bw/day for growth, liver lesions)	Schroeder et al., 1968	Clear endpoint relating to effects on assessment endpoints.
Arsenic	2.0	NA	Grazer	1	1	2	NA	Maximum tolerated in diet 50 ppm, dwb (convert with 0.04 kg diet/kg bw from Sax, 1984)	Bodek et al., 1988	
Barium	97.0	194.0	Chicken	1	1	97	194	NOAEL is 1000 ppm diet. Slight growth depression at 2,000-4,000 ppm. Converted with 0.097 kg/kg bw/d from Wiseman (1987).	Johnson et al., 1960	Only avian value.
Barium	35.6	71.2	Rat	1	1	35.6	NA	NEL for overt toxicity and survival. Caused hypertension. Estimate from 100 ppm in drinking water and 15 ml/45 g bw/d ingestion rate from same study.	Perry et al., 1989	Only value.

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Benzo(a) Anthracene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Benzo(a)pyrene	1.0	10.0	Rat	5	2	NA	10	LOAEL for reproductive success	Opresko et al., 1993	Toxicity endpoint appropriate ror assessment endpoints.
Benzo(a)pyrene	9.5	45.6	Hamster	1	1	9.5	45.6	NOEL and LOEL for decreased survival and body weight, 96 week exposure. Converted with assumed body weight of 0.050 kg, inhalation rate of 0.05 m3/d (EPA, 1993d).	CEPA, 1994a	
Benzo(b) Fluoranthene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Benzo(ghi)perylene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Benzo(k)fluoranthene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Benzyl alcohol	2.0	100.0	Bird	10	5	NA	100.0	LD50 study	RTECS, 1996	Only value.
Benzyl alcohol	20.8	1040.0	Rabbit	10	5	NA	1040.0	LD50 study	RTECS, 1996	Only value.
Beryllium	48.5	485.0	Poultry	5	2	NA	485	Caused ricketts in poultry, other livestock at 0.5% of diet. Use 0.097 kg/kg bw/day from Wiseman (1987) to convert.	Friberg et al., 1979	Only value.
Beryllium	0.3	NA	Rat	1	2	0.54	NA	NOAEL for weight loss	Opresko et al., 1993	
Beryllium	21.3	42.5	Rat	2	1	NA	42.5	Mild weight loss, 2 yr study. Estimate with 0.085 g/g bw/d (Groton et al 1991).	WHO, 1990a	Long term study. Clear endpoint.
Beta-BHC	2.4	118.0	Ring-necked pheasant	10	5	NA	118	LD50 for BHC	Hudson et al., 1984	
Bis(2-ethylhexyl) phthalate	31.2	156.0	Chicken	5	1	NA	156	Decreased egg production and body weight, for a 4 week exposure. Higher concentrations caused cessation of laying. Used 1.45 kg body weight (Wiseman, 1987) for hen weight; 226 mg/hen/day intake.	WHO, 1992a	Clear endpoint; starling effect beneficial so inappropriate as TBV.
Bis(2-ethylhexyl) phthalate	2.4	NA	Starling	1	1	2.4	NA	Increased body weight; 30 day exposure. Converted from 25 ppm w/0.097 g/g bw/day for chicken (Wiseman, 1987).	WHO, 1992a	
Bis(2-ethylhexyl) phthalate	51.0	510.0	Rat	5	2	NA	510	Decreased body weight; testicular atrophy; 6,000-12,000 ppm diet converted with 0.085 (Groton et al., 1991).	WHO, 1992a	Clear endpoint.
Bis(2-ethylhexyl) phthalate	78.0	780.0	Mouse	5	2	NA	780	Decreased body weight; male reproductive effects; 3,000-6,000 ppm diet converted with 0.26 g/g bw/day (EPA, 1993d).	WHO, 1992a	
Butylbenzyl phthalate	31.2	156.0	Chicken	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP for birds	see B2EHP for birds	
Butylbenzyl phthalate	51.0	510.0	Rat	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP for mammals	see B2EHP for mammals	
Cadmium	0.4	2.0	Mallard	5	1	NA	2.0	NOAEL for adults; LOAEL for kidney lesions in ducklings. Lesions uncertain for population effects w/o link to survival or repro. Measured 14.6 ppm in diet.I152 Used 42.8 g /798.5 g bw, or 0.054.	White and Finley, 1978	Only avian value.
Cadmium	2.5	NA	Rat	1	1	2.5	NA	NOAEL for behavior, condition, body weight, food consumption (30 ppm)	Groten et al., 1991	Clear endpoint; primary reference.
Cadmium	4.9	24.3	Rabbit	5	1	NA	24.3	Renal effects from 300 ppm diet, 10 month study. Estimated with 0.081 g/g bw/d from Equation 3-9 (EPA, 1993d) and assumed body weight of 1.3 kg.	WHO, 1992b	
Cadmium	0.002	NA	Grazer	1	1	0.002	NA	Maximum tolerated 0.05 ppm dwb, converted with 0.04 kg diet/kg bw, (Sax, 1984))	Bodek et al., 1988	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium (III)	0.3	NA	Black duck (adult)	1	2	0.63	NA	NOAEL (toxicity endpoint unknown) for adults (0.63 mg/kg bw/d converted with 0.063 kg/kg bw/d for adult from EPA, 1993d)	CEPA, 1994b	
Chromium (III)	0.1	1.3	Black duck (juvenile)	5	2	NA	1.26	10 ppm in diet decreased growth, survival in juveniles (1.26 mg/kg bw/d converted with 0.126 kg/kg bw/d for 100 gm duckling estimated from allometric equations in EPA, 1993d)	CEPA, 1994b; EPA, 1993d DIR (g/g bw/d)=(0.495 Wt^(0.704))/BW	
Chromium (III)	1.3	2.6	Tern	1	1	1.28	NA	NOEL for wild populations. Concentration in major prey items 7.6 ppm converted by author. No effect on reproduction or population success.	CEPA, 1994b	Use this study as it relates directly to assessment endpoint; test species related to receptor species.
Chromium (III)	0.1	1.0	Turkey	5	2	NA	0.97	10 ppm in diet converted with 0.097 kg diet/kg bw/d for chicken (Wiseman, 1987) decreased egg production.	CEPA, 1994b	
Chromium (III)	9.7	NA	Chicken	1	1	9.7	NA	NOEL (toxicity endpoint unknown) for 32 days was a 100 ppm diet.	CEPA, 1994b	
Chromium (III)	20.0	40.0	Cat	1	1	20	NA	NEL (toxicity endpoint unknown) for 80 day exposure to 50-1000 mg/cat/d; convert with assumed body weight of 2.5 kg.	NAS, 1974a	Use this study as it is long-term; dietary exposure.
Chromium (III)	0.9	NA	Rat	1	2	1.78	NA	NEL(toxicity endpoint unknown) for rats exposed to 5 mg/L in drinking water; convert with ingestion rate of 0.356 L/kg bw/d (Perry et al., 1989)	NAS, 1974a	
Chrysene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Cobalt	504.0	2520.0	Duckling	5	1	NA	2520	LEL for growth was 0.2% of diet. Convert with 1.26 kg/kg bw/day from EPA, 1993d allometric equation and assumed body weight of 100 g. DIR (g/g bw/d)=(0.495 Wt^(0.704))/BW	EPA, 1993d; Friberg et al., 1979	Only avian value.
Cobalt	0.0	0.0	Rat	1	2	NA	0.039	Altered thyroid function for 150 ug/d in diet. Convert with 0.26 kg diet/kg bw/d from EPA, 1993d for mouse. Unlikely to adversely affect populations.	Friberg et al., 1979	
Cobalt	1.0	10.0	Rat, rabbit	5	2	NA	10	Peroral dose of 10 - 100 mg/kg for more than 2 weeks cardiotoxic.	Friberg et al., 1979	
Cobalt	9.4	47.0	Mouse	5	1	NA	47	Increased mortality for 2.5 month study due to decreased resistance to virus.	Friberg et al., 1979	
Cobalt	2.4	12.0	Rat	5	1	NA	12	NOAEL for maternal toxicity based on weight gain of food consumption; adverse effects on pup survival and development when given day 14-21 gestation. Pup survival affected at maternal dose of 12 mg/kg bw/d.	Domingo, 1994	Endpoint relates to assessment endpoint.
Cobalt	0.019	NA	Duck	1	1	0.019	NA	Nutritional requirement	Wiseman, 1987	
Cobalt	5.0	NA	Bird, mammals	2	1	10	NA	All species get polycythemia above this intake.	Venugopal and Luckey, 1978	
Copper	14.5	NA	Mallard	1	2	29	NA	NOAEL for weight gain, mortality	Opresko et al., 1993	
Copper	55.3	72.7	Chicken	1	1	55.29	72.653	NOAEL of 570 ppm for 10 wks. for weight gain, mortality. At 749 ppm, mortality was 15%, weight reduced 30% relative to controls. Convert with 0.097 g/g bw/d, Wiseman, 1987.	Mehring et al., 1960	Long-term study with clear endpoints.
Copper	1.0	NA	Sheep	1	1	1	NA	Maximum chronic intake tolerated for grazers is 25-300 ppm in diet, dwb. Daily intake calculated with 0.04 kg diet/kg bw for cow (Sax, 1984).	Doherty et al., 1969; Bodek et al., 1988; Friberg et al., 1979	
Copper	4.0	20.0	Sheep	5	1	NA	20	Hemolysis after 9 weeks exposure.	Friberg et al., 1979	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Copper_noncarn	13.0	26.0	Rat	1	1	13	NA	Rats gained more weight on 50 ppm diet; converted with 0.26 kg diet/kg bw/d for mouse (EPA, 1993d).	Friberg et al., 1979	Use for non-carnivores. Actually a beneficial effect so if HQs high, check literature.
Copper	8.5	17.0	Pig	1	1	8.5	17	Pigs gained more weight on 250 ppm (8.5 mg/kg bw/d). At 500 ppm diet (17 mg/kg bw/d), anemia occurred. Converted with 0.034 kg/kg bw/d (Wiseman, 1987)	Friberg et al., 1979	
Copper_carn	7.9	13.0	Mink	1	1	7.865	13	25-50 ppm NEL or beneficial. 100 ppm in diet decrease weight gain, may increase kit mortality due to effect on lactation. Controls had 60.5 ppm in diet. Study 357 d duration. Convert w/0.13 g/g/d EPA, 1993d.	Aulerich et al., 1982	Use for carnivores.
Copper	0.3	NA	Dog	1	1	0.32	NA	Nutritional requirement	NAS, 1974b	
Cyanide	0.1	3.0	Mouse	10	5	NA	3	LD50	Jorgensen et al., 1991	
delta-BHC	2.4	118.0	Ring-necked pheasant	see beta-BHC	see beta-BHC	see beta-BHC	see beta-BHC	see beta-BHC	see beta-BHC	
Diazinon	490.0	2450.0	Pig	5	1	NA	2450	TDLo for gastrointestinal effects, changes in erythrocyte counts, death. 35 week study.	RTECS, 1996 (Toxicol. Appl. Pharmacol, 18:285, 1971)	
Dibenzo(a,h) Anthracene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Dichlorobenzene-nonspecific	25.0	50.0	Mouse, rat	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 1,2 DCB	see 1,2 DCB	see 12 DCB
Dichlorvos	520.0	5200.0	Mouse	10	1	NA	5200	TDLo for death in 13 week study. Oral exposure.	RTECS, 1996 (Natl Toxicol Program Tech Rep Ser, Vol. NTP-TR-342, 1989)	
Dichlorvos	1.6	88.0	Rat	1	1	1.6	88	Rats orally dosed with 0.8 and 1.6 mg/kg bw/d for 6 wks. No clinical evidence of toxicity, although EEG, conduction velocity, and refractory periods were changed. Single dose of 88 mg/kg bw enhanced excitation of nervous system.	Desi and Nagymajtenyi, 1988.	Long-term study resulting in NOAEL.
Dichlorvos	2.0	8.0	Buffalo	1	2	4	8	Oral exposure for 28 days inhibited AChE but did not produce overt toxicity. Higher dose lethal to 2/3 calves. Diazinon is used as a topical dip.	Raina et al., 1989	
Diethyl phthalate	31.2	156.0	Chicken	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP for birds	see B2EHP for birds	
Diethyl phthalate	51.0	510.0	Rat	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP for mammals	see B2EHP for mammals	
Dibutyl phthalate	1.1	NA	Ring dove	1	1	1.1	NA	NOAEL for shell thickness and other reproductive effects; 10 ppm diet.	Peakall, 1974	
Dibutyl phthalate	51.0	510.0	Rat	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP	
1,2-Dichlorobenzene	25.0	50.0	Mouse, rat	1	1	25	NA	NOEL, subchronic oral study, endpoints of body weight, survival, histopathology, hematology, organ weight range from 25-125 mg/kg bw/d.	CEPA, 1993a	Less extrapolation than using the inhalation study.
1,2-Dichlorobenzene	1208.0	NA	Rabbit	1	1	1208	NA	NOEL. Converted with body weight of 1.5 kg, inhalation rate of 0.755 m3/d from EPA, 1993d.	CEPA, 1993a	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
1,3-Dichlorobenzene	25.0	50.0	Mouse, rat	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB
1,4-Dichlorobenzene	25.0	50.0	Mouse, rat	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB	see 12 DCB
Dichloromethane	20.0	100.0	Mouse	5	1	NA	100	Increase mortality, decrease body weight in 36 week oral study.	CEPA, 1993b	
Dichloromethane	5.0	125.0	Rat	1	1	5	125	NOEL, 2 yr. study, based on non-neoplastic liver changes and toxicity. Decrease body weight and water consumption in 125 mg/kg bw/d group. Administered in drinking water.	CEPA, 1993b	Chronic lifetime no effect level.
2,4-Dichlorophenoxyacetic acid	16.0	800.0	Rabbit	10	5	NA	800	LD50	Sax, 1992	
2,4-Dichlorophenoxyacetic acid_CARN	2.0	100.0	Dog	10	5	NA	100	LD50	Sax, 1992	Use this value for carnivores.
2,4-Dichlorophenoxyacetic acid_noncarn	7.4	368.0	Mouse	10	5	NA	368	LD50	Sax, 1992	Test species more closely related to site receptors than rabbut,
2,4-Dichlorophenoxyacetic acid	10.0	500.0	Rat	10	5	NA	500	LD50	Sax, 1992	
Dieldrin	0.3	1.3	Gray partridge	5	1	NA	1.25	LOAEL for mortality for a 30 day study ranged from 1.25 to 5.0	Hudson et al., 1984	
Dieldrin	1.0	NA	Chicken	1	1	0.97	NA	NEL for mortality for an 8 week study. Converted from 10 ppm diet with 0.097 kg diet/kg bw/d from Wiseman (1987).	Ritchey et al., 1972	
Dieldrin	0.5	NA	Barn owl	1	1	0.5	NA	NEL for breeding success and mortality.	Mendenhall et al., 1983	Relates to assessment endpoint. Barn owl related to raptors.
Dieldrin	0.1	3.3	Mallard	1	1	0.06	3.28	NOAEL of 0.3 ug/g for growth observed for 24 d study. Converted with ingestion rate of 75 g/211 to 379 g bw = 0.20 to 0.36 g/g bw/d at day 24, from same study. LOAEL was 16.4 ug/g.	Nebeker et al., 1992	
Dieldrin	6.9	137.3	Short-tailed shrew	10	2	NA	137.28	14 day LC50 ranged from 66 to 132 mg/kg diet. Converted with ingestion rate of 1.17- 2.08 g/g bw/d from same study.	Blus, 1978	
Dieldrin_carn	0.05	NA	Dog	1	1	0.05	NA	NOAEL for health, behavior, body weight in 2 year study. Some altered serum chemistry that the authors considered toxicologically unimportant.	Walker et al., 1969	Relates to assessment endpoint. Use for carnivores.
Dieldrin	0.5	2.6	Rat	5	1	NA	2.6	LOAEL for behavior, liver lesions in 2 year study was 10 ppm in diet. This was a NEL for mortality. Converted with 0.26 kg diet/kg bw/d from EPA, 1993d.	Walker et al., 1969	
Dieldrin_noncarn	0.3	0.3	Rat	1	1	0.26	0.31	Long term study, 0.31 mg/kg bw/d decreased survival slightly in young, decreased conception. At 1 ppm in diet (0.26 mg/kg bw/d converted with value for deer mouse of 0.26 kg diet/kg bw/d from EPA, 1993d) altered liver histopathology.	Newell et al., 1987	Relates to assessment endpoint. Use for non-carnivores.
Dimethyl phthalate	31.2	156.0	Chicken	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP for birds	see B2EHP for birds	see B2EHP
Dimethyl phthalate	51.0	510.0	Rat	see B2EHP	see B2EHP	see B2EHP	see B2EHP	see B2EHP for mammals	see B2EHP for mammals	see B2EHP
Endosulfan I	0.6	31.2	Mallard	10	5	NA	31.2	LD50	Hudson et al., 1984	Only value

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Endosulfan II	0.6	31.2	Mallard	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I
Endosulfan Sulfate	0.6	31.2	Mallard	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I	See endosulfan I
Endrin	0.01	0.3	Mallard	10	5	NA	0.25	LD50	Hudson et al., 1984	
Endrin	0.032	0.2	Mallard	1	1	0.0315	0.189	NEL for reproductive effects in a 12 week study. Dietary level 0.5 ppm. 3 ppm decreased embryo survival, and decreased male body weight by 4.5%. Convert with 0.063 g/g bw/d from EPA (1993).	Roylance et al., 1985	Long term study. Relates to assessment endpoints.
Endrin	0.2	1.0	Chicken	5	1	NA	0.97	LEL for mortality in 8 week long study.	Ritchey et al., 1972	
Endrin	9.0	181.0	Short-tailed shrew	10	2	NA	180.96	LC50 for 14 day exposure with range of 87 - 174 mg/kg diet. Converted with ingestion rate of 1.17-2.08 from same study as described under DDT.	Blus, 1978	Only value.
Endrin Aldehyde	0.032	0.2	Mallard	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin
Endrin Aldehyde	9.0	181.0	Short-tailed shrew	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin
Endrin Ketone	0.032	0.189	Mallard	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin
Endrin Ketone	9.0	181.0	Short-tailed shrew	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin	see endrin
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Fluorene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Fluoride	1.6	3.2	Rat	2	1	NA	3.2	LOAEL for bone mineralization effects, chronic study with drinking water ingestion. Skeletal effects inconsistant in rats; otherstudies report NOEL at 5 weeks at 12.7 mg/kg bw/d; LOEL at 21 d of 4.7 mg/kg bw/d.	CEPA, 1993c	Clear endpoint. Lower dosages in other studies have beneficial or unclear effects.
Fluoride	0.8	NA	Mouse	1	1	0.8	NA	Stimulate bone formation 20% above control. At 363.2 mg/L (79.9 mg/kg bw/d) converted with 0.22 L/kg bw/d ingestion rate for deer mouse (EPA, 1993d), decreased survival occurred.	CEPA, 1993c	
Fluoride	0.3	NA	Dog	1	1	0.32	NA	Unspecified changes in bone at histopathologiecal level.	CEPA, 1993c	
gamma-BHC (Lindane)	6.0	30.0	Mallard	5	1	NA	30	LOAEL for mortality for 30 day study	Hudson et al., 1984	
gamma-BHC (Lindane)	1.0	NA	Chicken	1	1	0.97	NA	NEL for mortality in 8 week study where chickens given 10 ppm in diet. Converted with 0.097 kg diet/kg bw/d from Wiseman (1987).	Ritchey et al., 1972	Long term study.
gamma-Chlordane	1.1	2.1	Redwinged blackbird	1	2	2.13	NA	NOAEL for mortality	Opresko et al., 1993	Only value.
Heptachlor	41.6	2080.0	Mallard	10	5	NA	2080	LD50 exceeded 2,080 mg/kg bw.	Hudson et al., 1984	
Heptachlor	1.0	NA	Chicken	1	1	0.97	NA	NEL for mortality in 8 week study where chickens given 10 ppm in diet. Converted with 0.097 kg diet/kg bw/d from Wiseman (1987).	Ritchey et al., 1972	Long term study.
Heptachlor Epoxide	1.0	NA	Chicken	See heptachlor	See heptachlor	See heptachlor	See heptachlor	See heptachlor	See heptachlor	See heptachlor

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Indeno(1,2,3-cd) Pyrene	1.0	10.0	Rat	use BAP	use BAP	use BAP	use BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Iron	390.0	780.0	Bird	1	1	390	NA	Assumed based on nutritional requirements of 2.4-3.9 mg/kg bw/day (Wiseman, 1987).		Remain above nutritional requirement for TBVs to be technically defensible.
Iron	100.0	200.0	Rat	1	1	100	NA	Estimated from dose response curve with minimum LD 5.3 and maximum LD 500, most likely 256 mg/kg.	Venugopal and Luckey, 1978	Remain above nutritional requirement for TBVs to be technically defensible.
Iron	19.6	NA	Rat	1	1	19.55	NA	230 ppm in basal diet of controls. Convert with 0.085 g/g bw/d from Groton et al., 1991.	Schlicker and Cox, 1968	
Iron	260.0	NA	Dog	1	1	260	NA	Assumed based on nutrient requirement of 2.6 mg/kg bw/d.	NAS, 1974b	
Iron	2.4	NA	Duck	1	1	2.36	NA	Nutritional requirement	Wiseman, 1987	
Iron	3.9	NA	Chicken	1	1	3.88	NA	Nutritional requirement	Wiseman, 1987	
Lead	14.5	43.5	Kestrel	1	1	14.5	NA	NOAEL (*for survival, growth*) from diet of 50 ppm (25 mg/kg bw/d) converted with 0.29 kg diet/kg bw (kestrel)(EPA, 1993d). A NOAEL of 14.5 mg/kg for survival, histopathology and reproduction also reported.	Franson et al., 1983; Pattee, 1984; Hoffman et al., 1985a,b	Study concerns assessment endpoint and has test species closely related to site receptor species.
Lead (acetate)	9.7	NA	Chicken	1	1	9.7	NA	Dietary level of 100 ppm lead acetate tolerated, 8 wk study, 0.097 g/g bw/d (Wiseman, 1987) used to convert.	Ammerman et al., 1973	
Lead	1.3	6.5	Mice and rats	5	1	NA	6.5	LOAEL of 25 mg/kg diet lead salts. Caused impaired reproduction. Converted with 0.26 kg diet/kg bw (EPA, 1993d).	Venugopal and Luckey, 1978	
Lead (acetate)	12.0	170.0	Rat	1	1	11.985	170	Females on 2000 ppm had higher mortality than controls; males on 500 and 2000, but not 1000 ppm diet had higher mortality. Controls high mortality over 2 year study. Uses 141 ppm as NOAEL, 2000 as LOAEL. Use 0.085 g/g/d, Groton et al., 1991 to convert.	Azar et al., 1973	Study concerns assessment endpoint and has test species closely related to site receptor species. Long term study.
Lead (acetate)	79.0	NA	Dog	1	1	79	NA	NOAEL for appearance, behavior, weight gain, mortality, or neurology for dogs on 500 ppm diet for 2 yr. Convert with ingestion rate of 0.158 g/g bw/d for red fox (EPA, 1993d).	Azar et al., 1973	
Lead	1.2	NA	Grazer	1	1	1.2	NA	Maximum tolerated in diet 30 ppm, dwb. Convert with 0.04 kg diet/kg bw (Sax, 1984).	Bodek et al., 1988	
Manganese	410.0	820.0	Bird	1	1	410	NA	Assumed based on nutritional requirements of 6.8 and 4.13 for chickens and ducks (Wiseman, 1987)		Only suggested value.
Manganese	1.0	NA	Rat	1	1	1	NA	NEL for 60 day exposure for behavior and gross pathology in growing rats. Microscopic degeneration observed.	Friberg et al., 1979	
Manganese	5200.0	52000.0	Rat	1	1	5200	52000	NEL was 20,000 ppm for 28 day exposure for weight, histology. Microscopic degeneration observed. Converted with 0.26 kg/kg bw/d for mice from EPA, 1993d. LEL was 200,000 ppm.	Friberg et al., 1979	
Manganese	200.0	615.0	Rat, mouse	1	1	200	615	NOAEL for mortality for chronic exposure; 615 the LOAEL for mortality. NOAEL for mice 160-200.	NTP, 1993	Chronic study resulting in NOAEL and LOAEL.
Manganese	80.0	NA	Grazer	1	1	80	NA	Maximum chronic tolerated dietary level is 400 - 2000 ppm dwb (converted with 0.04 kg diet/kg bw (Sax, 1984))	Bodek et al., 1988	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Methyl n-butyl ketone	50.0	100.0	Rat	see MEK	see MEK	see MEK	see MEK	see MEK	see MEK	see MEK
Methyl ethyl ketone	50.0	100.0	Rat	1	1	50	NA	NOAEL for Methyl isobutyl ketone for body weight, food consumption, organ weight, histopathology, morbidity, clinical chemistry, hematology for 13 week study.	WHO, 1990b	Only value
2-Methylnapthalene	1.0	10.0	Rat	see BAP	see BAP	see BAP	see BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Mercury	2.5	12.5	Chicken	1	1	2.5	12.5	NOAEL for growth; 12.5 the LOAEL (convert with 0.097 kg diet/kg bw/day (Wiseman, 1987)). 12.5 mg/kg bw/d affects quail reproduction. 1.1 NEL for starling.	Thaxton et al., 1975; Thaxton and Parkhurst, 1973; Nicholson and Osborn, 1984.	Only inorganic avian data.
Mercury (organic)	0.1	0.3	Pheasant	5	1	NA	0.25	LOAEL for reproductive effects in a 350 d study with organic mercury. This was a NOAEL for mortality.	Spann et al., 1972	
Mercury (organic)	0.0	0.2	Mallard	1	1	0.0315	0.189	Study with 3 generations fed 0.5 and 3 ppm methyl mercury in diet. NEL for body weight, mortality was 0.5 ppm. Convert with 0.063 kg/kg bw/d EPA, 1993d. LOAEL 3 ppm for hatchling survival decrease 10%.	Heinz, 1976	
Mercury (organic)	0.0	0.2	Black duck	5	1	NA	0.189	Diet of 3 ppm methyl mercury over 2 yr. period reduced reproductive success. Convert with 0.063 kg/kg bw/d EPA, 1993d.	Finley and Stendall, 1978	
Mercury (organic)	0.4	0.7	Red-tailed hawk	1	1	0.3861	0.7128	No mortality (NEL) during 12 week study at 3.9 ppm methyl mercury in diet. Mortality (LEL) at 7.2 ppm. Converted with 0.099 kg diet/kg bw/d from EPA, 1993d.	Fimreite and Karsted, 1971	
Mercury (organic)	0.6	2.2	Rat	1	1	0.56	2.2	NOAEL for 2 yr. study with organic mercury. 2.2 mg/kg bw/d the LOAEL for growth, mortality.	Fitzhugh et al., 1950	
Mercury	14.0	NA	Rat	1	1	14	NA	NOAEL for 2 yr. study with inorganic mercury for reproduction, development. No LOAEL.	Fitzhugh et al., 1950	
Mercury	0.8	3.9	Mouse	5	1	NA	3.9	Increased morbidity. Converted from 15 ppm in diet with 0.26 kg diet/kg bw/d (EPA, 1993d).	Mitsumori et al., 1981	Use this study as mice may be more sensitive than rats based on Fitzhugh et al., 1950 study.
Mercury	0.4	NA	Mink	1	2	0.75	NA	NOAEL (toxicity endpoints unknown)	Aulerich et al., 1974	
Methoxychlor	40.0	2000.0	Mallard, sharp-tailed grouse, California quail	10	5	NA	2000	LD50 exceeded 2,000 mg/kg bw for all species.	Hudson et al., 1984	Only value.
n-hexane	114.0	570.0	rat	5	1	NA	570	LOAEL for neuropathy and testicular atrophy	EPA, 1994a	Only value.
Naphthalene	1.0	10.0	Rat	see BAP	see BAP	see BAP	see BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Nickel	17.5	87.3	Chicken	5	1	NA	87.3	900 LEL for growth inhibition (estimated from 900 ppm diet and 0.097 kg/kg bw/d from Wiseman, 1987). 1,000 ppm a NEL in other studies.	Venugopal and Luckey, 1978.	Only avian value.
Nickel_noncarn	31.6	158.0	Rat	5	1	NA	158	TDlo for multigeneration study for effects on embryo or fetus.	RTECs, 1996	Use this study for non-carnivores as rat related to two site receptors. Long term.

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Nickel	24.2	NA	Rat	1	1	24.15	NA	NOAEL for reproduction.	Opresko et al., 1993	
Nickel_carn	12.0	NA	Cat, dog	1	1	12	NA	NEL for 200 day study.	Venugopal and Luckey, 1978	Use this study for carnivores. Long term.
Nitrate, nitrite-nonspecific	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	0.1	0.7	chicken	1	1	0.067	0.67	NOAEL for reproductive effects for 8 week study. LOAEL was 0.67 mg/kg bw/d.	Scott, 1977	
PCB-1254	0.2	1.8	Ring-necked pheasant	1	1	0.18	1.8	NOAEL for reproduction, 16 week study. LOAEL was 1.8 mg/kg bw/d.	Dahlgren et al., 1972	Longest avian study. Appear more sensitive than ducks.
PCB-1254	1.5	NA	mallard	1	1	1.5	NA	NOAEL for reproduction, 1 month study. No LOAEL.	Custer and Heinz, 1980	
PCB-1254	0.1	1.3	chicken	1	1	0.13	1.3	NOAEL for reproductive effects for 9 week study. LOAEL was 1.3 mg/kg bw/d.	Lillie et al., 1974	
PCB-1254	0.3	1.7	mouse	5	1	NA	1.7	LOAEL for reproductive effects in a 2 generation study.	Linzey, 1988	Longest study. Test receptor related to site receptors.
PCB-1254	0.07	NA	Mink	1	1	0.07	NA	NOAEL for reproduction	Opresko et al., 1993	
Phenanthrene	1.0	10.0	Rat	see BAP	see BAP	see BAP	see BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Phenol	30.0	NA	Rat	2	1	60	NA	NOAEL, chronic, oral study demonstrating decreased fetal weight.	IRIS, 1996	
ppDDD	0.3	3.0	bald eagle	see DDT	see DDT	see DDT	see DDT	See DDT for birds	see DDT	see ppDDT
ppDDD	8.5	43.0	mouse	see DDT	see DDT	see DDT	see DDT	See DDT for mammals	see DDT	see ppDDT
ppDDE	0.6	3.0	barn owl	5	1	NA	3	LEL for eggshell thickness, embryo mortality, reproductive success.	Mendenhall et al., 1983	
ppDDE	8.5	43.0	mouse	see DDT	see DDT	see DDT	see DDT	see DDT	see DDT	see ppDDT
ppDDT	0.1	0.3	quail	5	1	NA	0.25	LOAEL for 26 week study for reproductive success. Other data indicate 1 a NOAEL and 2.5 mg/kg bw/d a LOAEL for quail for reproduction and mortality.	Davison et al., 1976; Stickel and Rhodes, 1970	
ppDDT	0.1	1.2	mallard	1	1	0.12	1.2	NOAEL for eggshell thinning, 11 month study. LOAEL was 1.2.	Davison and Sell, 1974	
ppDDT	0.1	1.1	kestrel	1	1	0.11	1.1	NOAEL for 5.5 month study for eggshell thinning. LOAEL was 1.1 mg/kg bw/d.	Lincer, 1972	
ppDDT	0.3	3.0	bald eagle	1	1	0.3	3	NOAEL for mortality for 112 day study. The LOAEL was 3 mg/kg bw/d.	Chura and Stewart, 1967; Stickel et al., 1966	Lower TBV than owl study; results consistent with kestrel, mallard study.
ppDDT	0.005	0.027	brown pelican	5	1	NA	0.027	Chronic LOAEL for reproduction; value is for DDT and metabolites. UF as per EPA, 1995.	Anderson et al., 1975	
ppDDT	2.9	14.5	rat	5	1	NA	14.5	LOEL for decreased lipid by 30%, increased liver weight by 20% due to hypertrophy	Newell et al., 1987	
ppDDT	8.5	43.0	mouse	1	1	8.5	43	NOAEL for mortality, longevity for chronic study. LOAEL was 43 mg/kg wb/day.	Turasov et al., 1973	Chronic study; appropriate toxicity endpoints relating to assessment endpoints.
ppDDT	0.8	4.0	rat	1	1	0.8	4.0	NOAEL for reproductive effects for chronic study. 4.0 mg/kg bw/day the LOAEL. Suspect study due to antiquated analytical techniques.	Fitzhugh, 1948	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
ppDDT	87.3	1745.1	short-tailed shrew	10	2	NA	1745.12	14-day LC50 ranged from 839 to greater than 2552 ppm diet. Shrews fed 25-30 g diet per day/14.4 to 21.3 g bw; dietary ingestion rate 1.17 -2.08 g/g bw/d.	Blus, 1978	
Pyrene	1.0	10.0	Rat	see BAP	see BAP	see BAP	see BAP	see Benzo(a)pyrene	see Benzo(a)pyrene	use BAP
Selenium	0.660	1.3	Chicken	1	1	0.66	NA	NOAEL for egg production and egg weight, although slight decrease in hatchability.	Ort and Latshaw, 1978	Appropriate toxicity endpoints relative to assessment endpoint. Must remain above required nutrient level.
Selenium	0.485	NA	Chicken	1	1	0.485	NA	Threshold for diet of 5 ppm for farm animals and poultry for effects on growth, survival. Convert with 0.097 kg diet/kg bw/d from Wiseman, 1987.	Friberg et al., 1979	
Selenium	0.010	NA	Chicken	1	1	0.0097	NA	Required as nutrient.	Wiseman, 1987	
Selenium	0.252	1.0	Mallard	1	1	0.252	1.008	16 ppm diet decreased hatching success in 100 d study. 8 ppm increased malformed embryos. 4 ppm diet NOAEL. Convert w/ 0.063 g/g bw/d from EPA, 1993d.	Heinz et al., 1989	
Selenium	0.189	0.9	Mallard	5	1	NA	0.945	NEL for 21 week study for mortality is 15 ppm in diet; this will cause reproductive problems. 100 ppm in diet lethal. Convert with 0.063 kg diet/kg bw/day from EPA, 1993d. 40 ppm in diet lethal to ducklings.	Heinz, 1993; Heinz et al., 1988	
Selenium	0.200	NA	Livestock	1	1	0.2	NA	Threshold for diet of 5 ppm for farm animals and poultry for effects on growth, survival. Convert with 0.04 kg diet/kg bw/d from Sax, 1984.	Friberg et al., 1979	
Selenium	1.248	1.7	Rat	1	1	1.248	1.664	Diet of 4.8 ppm NEL for blood chemistry, growth, histopathology for 6 week study. LEL was 6.4 ppm. Convert with 0.26 kg/kg bw/d from EPA, 1993d for mice.	Friberg et al., 1979	
Selenium	0.114	0.6	Mouse	5	1	NA	0.57	LOAEL for reproductive effects	Opresko et al., 1993	Appropriate toxicity endpoints relative to assessment endpoint. Must remain above required nutrient level.
Selenium	0.080	NA	Grazer	1	1	0.08	NA	Maximum tolerated in diet is 2 ppm dwb (convert with 0.04 kg diet/kg bw (Sax, 1984)).	Bodek et al., 1988	
Selenium	0.004	NA	Dog	1	1	0.004	NA	Nutritional requirement	NAS, 1974b	
Silver	17.5	87.3	Turkey	5	1	NA	87.3	LEL for cardiac effects and 28.6% mortality for 18 week study with 900 ppm. Convert with 0.097 kg/kg bw/d from Wiseman, 1987.	Friberg et al., 1979	Only avian value.
Silver	65.0	130.0	Rat	1	1	65	NA	NOAEL for appearance, behavior, fluid consumption, mortality for 12 week study.	Walker, 1971	Both mammalian studies have consistent results.
Silver	68.0	NA	Pig	1	1	68	NA	NOAEL for overt toxicity and growth depression. Fed diet with 2% silver acetate, converted with 0.034 kg/kg bw/d (Wiseman , 1987)	Van Vleet, 1976	
Tetrachloroethylene	14.0	NA	Rat	1	1	14	NA	90-day NOEL for weight gain.	CEPA, 1993d	
Tetrachloroethylene	213.6	1067.8	Rat	5	1	NA	1067.8	LOAEL for chronic inhalation study. Decreased survival and caused cellular changes. Converted with rate of 0.126 m3/d from allometric equation (EPA, 1993d) and assumed body weight of 0.16 kg.)	CEPA, 1993d	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Tetrachloroethylene	4.0	20.0	Mouse	5	1	NA	20	LOAEL for hepatic damage.	CEPA, 1993d	Appropriate toxicity endpoint relative to assessment endpoint. Avoid extrapolating from inhalation when possible.
Thallium	0.5	23.7	Ring-necked pheasant	10	5	NA	23.7	LD50	Hudson et al., 1984	Only avian value.
Thallium	0.3	15.8	Rodents	10	5	NA	15.8	LD50 range from 15.8 - 43.6 mg/kg bw/d.	Jorgensen et al., 1991	
Thallium	0.1	5.0	Mammals	10	5	NA	5	LD50 ranges from 5 - 70 mg/kg bw.	Friberg et al., 1979	
Thallium	0.6	6.0	Mouse	5	2	NA	6	Mice gavaged on gestational days 6-15 had postimplantation fetal loss and slight decrease in birth weight.	Roll and Matthiaschk, 1981	
Thallium	0.3	3.0	Rat	5	2	NA	3	Rats gavaged on gestational days 6-15 had slight increase in postimplantation fetal loss.	Roll and Matthiaschk, 1981	Best study. Reproduction a more sensitive endpoint than overt mortality.
Thallium	1.14	5.70	Rat	5	1	NA	5.70	Rats treated for 6 months lost hair, had ultrastructural changes in muscle tissue from Tl-acetate.	Deshimaru et al., 1977	
Thallium	0.3	NA	Rat	1	1	0.25	NA	In 90-d study with oral gavage, NOAEL was 0.25 mg/kg bw/d for weight, food intake, hematology, clinical chemistry, neurology, and histopathology. No LOAEL as this was highest dose.	EPA, 1986e	
Thallium	0.28	1.40	Rat	5	1	NA	1.4	After treatment for 36 wk w/ Tl in drinking water, mortality was 21%.	Manzo et al., 1983	
Thallium	1.3	2.6	Rat	1	1	1.275	2.55	Fed acetate and oxide forms for 15 wks; 30 ppm lethal to 100%. Mortality in 15 ppm treatment similar to controls. Use 15 ppm as NOAEL, 30 ppm as LOAEL. Use 0.085 g/g/d from Groton et al., 1991 to convert.	Downs et al., 1960	
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total petroleum hydrocarbons	126.0	1260.0	mallard	1	1	126	1260	NOAEL of 20,000 ppm diet, 22 week study for mortality, body weight, food consumption, reproduction & hatching success. This was a LOAEL for serum chemistry, eggshell thickness. Converted with 0.063 kg/kg bw/d (EPA, 1993). 2000 ppm a NOAEL, all effects.	Stubblefield et al., 1995a	Only avian value.
Total petroleum hydrocarbons	1000.0	10000.0	ferret	1	5	5000	NA	5 day NOAEL for serum chemistry. Minor effects noted were increased serum albumin, decreased spleen weight in treated females.	Stubblefield et al., 1995b	Best mammalian study as it was multiple dose, not single dose.
Total petroleum hydrocarbons	320.0	16000.0	mouse	10	5	NA	16000	LD50 range for three crude oils exceeded highest test doses of >10 - 16 g/kg bw.	Smith et al., 1980	
Toxaphene	0.4	19.9	Sharp-tailed grouse	10	5	NA	19.9	LD50	Hudson et al., 1984	Only value.
1,1,1-Trichloroethane	114.0	5700.0	Rabbit, guinea pig, rat	10	5	NA	5700	LD50	Jorgensen et al., 1991	Only value. Multiple species.
Trichloroethylene	100.0	100.0	Mouse	1	1	NA	100	Increased liver weight in 6 week oral study.	CEPA, 1993e	Chronic oral study.
Trichloroethylene	157.0	157.0	Mouse,rat, gerbil	1	1	NA	157	Increased liver weight, altered enzyme level, 200 mg/m3 converted wityh 0.126 m3/d from allometric equation (EPA, 1993d) and assumed body weight of 0.16 kg.	CEPA, 1993e	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Trichloroethylene	393.0	393.0	Mouse	1	1	NA	393	Alter urinary and hematological parameters in 4-6 month study from drinking water ingestion of 2500 mg/L.	CEPA, 1993e	
Vanadium	1.9	NA	Chicken	1	1	1.94	NA	Dietary V ≤ 20 ppm won't affect reproduction in 4 week test, although 6 ppm decreased quality of egg albumin. Convert with 0.097 g/g bw/d from Wiseman, 1987.	Sell et al., 1986	
Vanadium	0.5	0.5	Chicken	1	1	NA	0.485	5 ppm in diet a LOAEL for growth rate decreases in 4 week study. Convert with 0.097 g/g bw/d for diet (Wiseman, 1987).	Cervantes and Jensen, 1986	Data highly conflicting- dont use toxicity UFs on this. Use this value but discuss in uncertainty section if a driver.
Vanadium	2.4	4.9	Chicken	1	1	2.425	NA	V at 12.5 or 25 ppm diet did not affect growth rate in 4 week study. Convert with 0.097 g/g bw/d diet (Wiseman, 1987).	Kubena et al., 1986	
Vanadium	0.5	NA	Ruminants	1	1	0.53	NA	Tolerated by young ruminants.	Venugopal and Luckey, 1978.	
Vanadium	0.8	20.0	Cow	5	5	NA	20	20 mg/kg bw toxic within 3 days of administration.	Platonow and Abbey, 1968	
Vanadium	0.8	40.0	Sheep	10	5	NA	40	Limited study with few animals indicated 9.7 - 11.2 mg/kg bw toxic as defined by 75% decrease in feed intake. Alter dose during test. 40 mg/kg bw, single dose, was lethal to 2/3 sheep.	Hansard et al., 1982	
Vanadium	0.1	5.1	Guinea pig	1	2	0.128	5.12	Brain enzyme activity reduced at 5.12 mg/kg /day; NEL was 0.128 mg/kg/d for 10-15 days. Not a clear population effect.	Friberg et al., 1979	
Vanadium	0.05	NA	Rat	1	1	NA	0.05	LEL for unspecified reflexes for 80 day feeding of aqueous solution 0.05-0.5 mg V/kg bw/d.	Friberg et al., 1979	Use this - toxicity endpoint not closely relates to population effects so don't apply toxicity UFs.
Xylenes	125.0	500.0	Rat	1	2	250	500	NOAEL, short term study (body weight, survival, hepatic). Converted with body weight of 0.16 kg, inhalation rate of 0.126 m3/d (EPA, 1993d)	CEPA, 1993f	Toxicity endpoints relate to assessment endpoints.
Xylenes	500.0	NA	Mouse	1	2	1000	NA	NOAEL.	CEPA, 1993f	
Zinc	23.0	NA	Bird	1	1	23	NA	Assumed based on nutritional requirements of 2.4-8.0 mg/kg bw/day for quail, ducks, chicken.	Wiseman, 1987	
Zinc	37.8	189.0	Mallard	5	1	NA	189	Ducks fed 3000 ppm in diet had decreased gonad size, probably impairment of function. Overt toxicity after 20 days. Mortality high by 60 days. Convert with 0.063 g/g/d, EPA, 1993d.	Gasaway and Buss, 1972	Appropriate endpoint. Long study.
Zinc	97.0	145.5	Chicken	1	1	97	145.5	Tolerate 1000 ppm in feed, but 1500 and above decreased growth. Carbonate >sulfate>oxide in toxicity. Convert w/ 0.097 g/g/d from Wiseman, 1987.	Roberson and Schaible, 1960	
Zinc	291.0	485.0	Chicken	1	1	291	485	Minimal mortality (15%) at 10 wks on diet with 5000 ppm. Mortality was 2.5% for 3000 ppm treatment; use this as NOAEL. Convert with 0.097 g/g/d from Wiseman, 1987.	Johnson et al., 1962	
Zinc	50.0	100.0	Mouse	1	2	NA	100	500 mg/L in drinking water causes histopathological changes. Convert with 0.2 L/kg bw/day from EPA, 1993d. Use low UF because no direct link with population effects.	Friberg et al., 1979	

Table 15.2-48 Summary of Toxicity Information for Mammals and Birds

Analyte	TBV-Low (mg/kg bw/d)	TBV-High (mg/kg bw/d)	Species	Study Endpoint UF	Study Duration UF	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Study Description	Reference	Comment
Zinc	170.0	340.0	Rat	1	1	170	340	0.2% in diet NOAEL for effects on fetus. 0.4% in diet caused reproductive effects. Study ranged from 16 to 40 days. Convert with 0.085 kg/kg bw/d from Groton et al., 1991.	Schlicker and Cox, 1968	Use this. Consistent with other rat study as well.
Zinc	170.0	850.0	Rat	5	1	NA	850	1% in diet toxic to rats (850 mg/kg bw/d converted with 0.085 kg/kg bw/d from Groton et al., 1991).	Lewis et al., 1957	
Zinc	34.0	NA	Pig	1	1	34	NA	NOAEL based on 1000 ppm diet and ingestion rate of 0.034 kg/kg bw/d (Wiseman, 1987). Duration of study 14 - 17 wks.	Sutton and Nelson, 1937	Study does not provide a LOAEL so not as useful as rat study.
Zinc	40.0	NA	Grazer	1	1	40	NA	Maximum tolerated in diet 300-1000 ppm, dwb.	Bodek et al., 1988	
Zinc	5.0	NA	Sheep	1	1	5	NA	No adverse effect on development of fetus when given to ewes during gestation.	James et al., 1966	

UF = uncertainty factor
NA = not available
TBV = toxicity benchmark value
LOAEL = lowest observed adverse effects level
NOAEL = no observed adverse effects level
TBV-low = NOAEL based
TBV-high = LOAEL based

Table 15.2-49 Toxicity Benchmark Values for Plants and Soil Fauna

Analyte	TBV-Low (mg/kg)[1]	TBV-High (mg/kg)[1]	Species	Uncertainty Factors for Health Effects	NOEC	LOEC	Endpoint Description	Reference	Comment
Acenaphthene	***12.5***	***25***	Lettuce	2	NA	25	EC50 for inhibition of growth relative to control for 14 d study	Hulzebos et al., 1993	
Acenaphthene	30	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Acenaphthylene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Acenaphthylene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Aldrin	***50***	NA	Earthworm	See dieldrin	See dieldrin	See dieldrin	See dieldrin	See dieldrin	See dieldrin
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	
Aluminum	***50***	NA	plants	1	50	NA	Recommended benchmark value. Too low for alkaline soils.	Will and Suter, 1995	
Aluminum	730	730	Wheat	1	NA	730	At soil pH <5, relative root length decreased 80% that of controls. Expected to be less toxic in neutral, alkaline soils.	Wright et al., 1989	Best value since relates to soil pH. Primary reference.
Aluminum	2800	***2800***	woodlouse	1	NA	2800	55 - 75% survival over 6 - 12 weeks at 2500 - 2800 mg/kg soil	ICF, 1989	Only value.
Anthracene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Anthracene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Antimony	***5***	NA	plants	1	5	NA	recommended benchmark value	Will and Suter, 1995	Only value.
Arsenic	***10***	NA	plants	1	10	NA	Recommended benchmark value. AsV at this concentration may suppress growth in some species; AsIII suppresses growth at 25 mg/kg..	Will and Suter, 1995; CEPA, 1993g	
Arsenic	25	NA	plants	1	25	NA	Recommended criterion is <25 mg total arsenic/kg soil.	Eisler, 1988	Appropriate value; growth suppression was vague endpoint.
Arsenic	Varies	Varies	plants	1	NA	NA	Predicted by equation for metal mixture from data in Kapustka et al., 1995	Phytotox = 42.281918 + 0.039561 (As) - 2.06503 (Cd) + 0.009018 (Cu) + 0.111137 (Pb) - 0.000024 (Zn) - 7.641052 (pH)	
Arsenic	***224***	NA	plants	1	224	NA	Maximum concentration from bioassay indicating unimpacted or nonphytotoxic soils.	Kapustka et al., 1995	
Arsenic	60	NA	Earthworms	1	60	NA	recommended benchmark value	Will and Suter, 1995	Only value.
Barium	***500***	NA	plants	1	500	NA	recommended benchmark value	Will and Suter, 1995	Only value.
Benzo(a)anthracene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Benzo(a)anthracene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Benzo(a)pyrene	50	***>50***	Corn, soya, wheat	1	50	NA	Stimulates growth. Levels above this inhibit growth.	CEPA, 1994a	Only value. Use this to represent other PAHs when no plant TBV exists since data for multiple species.

Table 15.2-49 Toxicity Benchmark Values for Plants and Soil Fauna

Analyte	TBV-Low (mg/kg)[1]	TBV-High (mg/kg)[1]	Species	Uncertainty Factors for Health Effects	NOEC	LOEC	Endpoint Description	Reference	Comment
Benzo(a)pyrene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Benzo(b)fluoranthene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Benzo(b)fluoranthene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Beryllium	***10***	NA	plants	1	10	NA	recommended benchmark value	Will and Suter, 1995	Only value.
Beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	50	***100***	soybean	2	NA	100	decreased yield by 76% relative to controls.	Wallace, 1989b	Primary reference. Clear toxicological endpoint.
Cadmium	Varies	Varies	alfalfa, lettuce, wheat	1	NA	NA	Predicted by equation for metal mixture from data in Kapustka et al., 1995	Phytotox = 42.281918 + 0.039561 (As) - 2.06503 (Cd) + 0.009018 (Cu) + 0.111137 (Pb) - 0.000024 (Zn) - 7.641052 (pH)	
Cadmium	8.6	NA	plants	1	8.6	NA	Maximum concentration from bioassay indicating unimpacted or nonphytotoxic soils.	Kapustka et al., 1995	
Cadmium	***3***	NA	Plants	1	3	NA	recommended benchmark value	Will and Suter, 1995	
Cadmium	5	5	plants	1	NA	5	phytotoxic level in soils	ICF, 1989	
Cadmium	9	NA	isopods	1	9	NA	NEL for adverse effects on population although individual effects (fewer gravid females, decreased size) observed.	Donker et al., 1993	Recent data. Primary reference. Population effect similar to assessment endpoint. Less extrapolation to get to TBV.
Cadmium	387	774	collembola	2	NA	774	LC50 in diet was 77.4 mg/kg for one species and 186 mg/kg for another. No ingestion rates given. Assuming soil is 10% of diet provides as estimate of an LC50 in soil of 774 mg/kg.	Crommentuijn et al., 1994	
Cadmium	20	NA	earthworms	1	20	NA	threshold for adverse effects on growth and sexual maturation	ICF, 1989	
Cadmium	20	NA	earthworms	1	20	NA	recommended benchmark value	Will and Suter, 1995	
Chromium	5	NA	tobacco, other agricultural crops	1	5	NA	phytotoxic level in soils is >5 mg/kg	ICF, 1989	
Chromium	200	***200***	plants	1	150	200	Under certain soil conditions, 150 mg/kg may inhibit growth in sensitive plants. 200 mg/kg inhibit growth by 23-36% in grasses, lettuce, radish.	CEPA, 1994b	Species include typical native forage. Recommended benchmark lower than ambient.
Chromium	1	NA	plants	1	1	NA	Recommended benchmark value.	Will and Suter, 1995	
Chromium	***0.4***	NA	earthworms	1	0.4	NA	Recommended benchmark value.	Will and Suter, 1995	
Chrysene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Chrysene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Cobalt	***20***	NA	plants	1	20	NA	Recommended benchmark value.	Will and Suter, 1995	Both values similar. This has less uncertainty applied.

Table 15.2-49 Toxicity Benchmark Values for Plants and Soil Fauna

Analyte	TBV-Low (mg/kg) [1]	TBV-High (mg/kg) [1]	Species	Uncertainty Factors for Health Effects	NOEC	LOEC	Endpoint Description	Reference	Comment
Cobalt	75	*75*	corn	1	NA	75	decreased yield by 50%; produced iron deficiency	Wallace, 1989a	
Copper	100	100	plants	1	NA	100	phytotoxic level in soils	ICF, 1989	
Copper	100	NA	plants	1	100	NA	recommended benchmark value. Levels required to prevent deficiency are 6-30 mg/kg (NAS, 1977).	Will and Suter, 1995	Use this as lower value below nutritional requirements.
Copper	Varies	Varies	alfalfa, lettuce, wheat	1	NA	NA	Predicted by equation for metal mixture from data in Kapustka et al., 1995	Phytotox = 42.281918 + 0.039561 (As) - 2.06503 (Cd) + 0.009018 (Cu) + 0.111137 (Pb) - 0.000024 (Zn) - 7.641052 (pH)	
Copper	1062	NA	plants	1	1062	NA	Maximum concentration from bioassay indicating unimpacted or nonphytotoxic soils.	Kapustka et al., 1995	
Copper	60	1000	earthworm	1	60	1000	threshold for adverse effects on growth and sexual maturation. 1000 mg/kg caused 100% mortality in 12 weeks	ICF, 1989	
Copper	200	1000	earthworm	5	NA	1000	100% mortality within 12 weeks	Ma, 1984	
Copper	83.8	NA	isopods	1	83.8	NA	NEL for adverse effects on population although individual effects (fewer gravid females, decreased size) observed.	Donker et al., 1993	Use this since relates to assessment endpoint for soil fauna. Recent data.
Copper	400	***400***	microarthropods	1	100	400	Alter structure of microarthropod community. 400 mg/kg would decrease function as total numbers decreased.	Parmelee et al., 1993	
Copper	200	NA	orbatid mites	1	200	NA	NOEL for population decline in five species; one species showed decline.	Streit, 1984	
Copper	***50***	NA	Earthworm	1	50	NA	Recommended benchmark value.	Will and Suter, 1995	
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazinon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorvos	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-ethylhexyl phthalate	***100***	NA	Spinach, pea	1	100	NA	NEL	WHO, 1992a	Use this as it gives a no effect value, and has less applied uncertainty.
Di-ethylhexyl phthalate	1000	***1000***	Lettuce	1	NA	1000	EC50 for inhibition of growth relative to control >1000 mg/kg for 14 day study	Hulzebos et al., 1993	
Di-ethylhexyl phthalate	1000	NA	Rape, oats	1	1000	NA	NOEC for rape. Slight effect on oats.	WHO, 1992a	
Dibenzo(a,h)anthracene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Dibenzo(a,h)anthracene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Dieldrin	***50***	NA	Earthworm	1	50	NA	NOEC for growth or sexual maturation	ICF, 1989	
Diethyl phthalate	***67***	***134***	Lettuce	2	NA	134	EC50 for inhibition of growth relative to control for 14 day study	Hulzebos et al., 1993	
Diethyl phthalate	100	NA	Plants	1	100	NA	Recommended benchmark value.	Will and Suter, 1995	Use this as it gives a no effect value, and has less applied uncertainty.
Endosulfan I	***1000***	NA	Lettuce	1	1000	NA	EC50 for inhibition of growth relative to control >1000 mg/kg for 14 day study	Hulzebos et al., 1993	Only value.

Table 15.2-49 Toxicity Benchmark Values for Plants and Soil Fauna

Analyte	TBV-Low (mg/kg)[1]	TBV-High (mg/kg)[1]	Species	Uncertainty Factors for Health Effects	NOEC	LOEC	Endpoint Description	Reference	Comment
Endosulfan II	***1000***	NA	Lettuce	1	1000	NA	EC50 for inhibition of growth relative to control >1000 mg/kg for 14 day study	Hulzebos et al., 1993	Only value.
Endosulfan Sulfate	***1000***	NA	Lettuce	NA	NA	NA	See ENSLFII	NA	
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Fluoranthene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Fluorene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Fluorene	34.6	173	earthworm	5	NA	173	LC50	ICF, 1989	
Fluorene	***30***	NA	earthworm	1	30	NA	Recommended benchmark value.	Will and Suter, 1995	Use this to represent all PAHs for invertebrates as it has lower UFs added to it.
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Indeno(1,2,3-cd)pyrene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Iron	***1000***	1000	woodlice species	1	NA	1000	significant increase in respiratory rate	ICF, 1989	Only value.
Lead	***494***	NA	plants	1	494	NA	phytotoxicity of soils is probable above this level, which is a median from studies reported by EPA, 1992f	EPA, 1992b	
Lead	50	NA	plants	1	50	NA	recommended benchmark value	Will and Suter, 1995	
Lead	Varies	Varies	alfalfa, lettuce, wheat	1	NA	NA	Predicted by equation for metal mixture from data in Kapustka et al., 1995	Phytotox = 42.281918 + 0.039561 (As) - 2.06503 (Cd) + 0.009018 (Cu) + 0.111137 (Pb) - 0.000024 (Zn) - 7.641052 (pH)	Use this equation since it relates to soil pH.
Lead	179	NA	plants	1	179	NA	Maximum concentration from bioassay indicating unimpacted or nonphytotoxic soils.	Kapustka et al., 1995	
Lead	500	NA	earthworms	1	500	NA	recommended benchmark value	Will and Suter, 1995	
Lead	606	NA	isopods	1	606	NA	NEL for adverse effects on population although individual effects (fewer gravid females, decreased size) observed.	Donker et al., 1993	Population endpoint = assessment endpoint.
Lead	95	NA	invertebrates	1	95	NA	NOEC for unknown effects.	ICF, 1989	
Manganese	***500***	NA	plants	1	500	NA	recommended benchmark value	Will and Suter, 1995	
Mercury	10	***10***	plants	1	NA	10	concentration in sludge identified as potentially toxic to plants and animals.	ICF, 1989	Only value.

Table 15.2-49 Toxicity Benchmark Values for Plants and Soil Fauna

Analyte	TBV-Low (mg/kg)[1]	TBV-High (mg/kg)[1]	Species	Uncertainty Factors for Health Effects	NOEC	LOEC	Endpoint Description	Reference	Comment
Mercury	***0.3***	NA	plants	1	0.3	NA	recommended benchmark value	Will and Suter, 1995	Use this.
Mercury	1	5	earthworms	1	1	5	NEL for normal regeneration. LEL was 5 mg/kg.	Eisler, 1987	
Mercury	0.1	NA	earthworms	1	0.1	NA	recommended benchmark value	Will and Suter, 1995	Use this.
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Naphthalene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Nickel	270	270	Lettuce	1	NA	270	Decrease growth by 25% in calcareous soils. In acid soil, same effect at 75 mg/kg.	CEPA, 1994c	
Nickel	250	250	Wheat	1	NA	250	Decrease growth by 25% in calcareous soils. In acid soil, same effect at 110 mg/kg.	CEPA, 1994c	Use this since relates to soil pH.
Nickel	50	50	Oats, mustard	1	NA	50	decrease yield by 16 - 31% at pH 5.7.	CEPA, 1994c	
Nickel	***25***	NA	plants	1	25	NA	recommended benchmark	Will and Suter, 1995	
Nickel	500	***500***	earthworms	1	NA	500	Reduced growth and reproduction.	ICF, 1989	
Nickel	200	NA	earthworms	1	200	NA	recommended benchmark	Will and Suter, 1995	Use this since less applied uncertainty.
PCBs	***40***	NA	Plants	1	40	NA	recommended benchmark	Will and Suter, 1995	Only value.
PCB-1254	120	***240***	earthworm	2	NA	240	LC50 in soil for 14-d laboratory bioassay.	Rhett et al., 1988	Use this but note that field studies contradict the lab data.
PCB-1254	600	1200	Cricket	2	NA	1200	LC50 in soil for 14-d laboratory bioassay.	Paine et al., 1993	
PCB-1254	6300	NA	Insect species inc. crickets, hymenopterans, homopterans.	1	6300	NA	Field study where insects contained 13.9 to 60 mg/kg PCBs where soil contained 6300 mg/kg; body burdens of 100 mg/kg and higher are toxic.	Watson et al., 1985; Paine et al., 1993	
Phenanthrene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Phenanthrene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
ppDDD	***40***	***200***	earthworm	See DDT	See DDT	See DDT	See DDT	See DDT	See DDT
ppDDE	***40***	***200***	earthworm	See DDT	See DDT	See DDT	See DDT	See DDT	See DDT
ppDDT	***40***	***200***	earthworm	5	NA	200	95% mortality	Jorgensen et al., 1991	
Pyrene	50	***>50***	Corn, soya, wheat	See BAP	See BAP	See BAP	See BAP	See BAP	See BAP
Pyrene	***30***	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Selenium	***1***	NA	wheat and buckwheat	1	1	NA	decreased growth rate	ICF, 1989	Only value.
Selenium	***1***	NA	plants	1	1	NA	Recommended benchmark value.	Will and Suter, 1995	
Selenium	***70***	NA	Earthworm	1	70	NA	Recommended benchmark value.	Will and Suter, 1995	
Silver	***2***	NA	plants	1	2	NA	recommended benchmark value	Will and Suter, 1995	Only value.

Table 15.2-49 Toxicity Benchmark Values for Plants and Soil Fauna

Analyte	TBV-Low (mg/kg)[1]	TBV-High (mg/kg)[1]	Species	Uncertainty Factors for Health Effects	NOEC	LOEC	Endpoint Description	Reference	Comment
Styrene	***160***	***320***	Lettuce	2	NA	320	EC50 for inhibition of growth relative to control >320 mg/kg for 14 day study	Hulzebos et al., 1993	
Styrene	300	NA	Plants	1	300	NA	Recommended benchmark value.	Will and Suter, 1995	Data consistent. Use this value.
Styrene	30	NA	earthworm	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene	See Fluorene
Thallium	***1***	NA	plants	1	1	NA	Recommended benchmark value.	Will and Suter, 1995	Only value.
Toluene	***1000***	NA	Lettuce	1	1000	NA	EC50 for inhibition of growth relative to control >1000 mg/kg for 14 day study	Hulzebos et al., 1993	
Toluene	***200***	NA	Plants	1	200	NA	Recommended benchmark value.	Will and Suter, 1995	Data inconsistent. Use lower of two studies.
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium	***2***	NA	Plants	1	2	NA	recommended benchmark value	Will and Suter, 1995	Only value.
Vanadium	***20***	NA	Soil microbes	1	20	NA	recommended benchmark value	Will and Suter, 1995	Only value.
Zinc	93	93	chrysanthemums	1	NA	93	decreased growth	ICF, 1989	
Zinc	***50***	NA	plants	1	50	NA	recommended benchmark value	Will and Suter, 1995	
Zinc	Varies	Varies	alfalfa, lettuce, wheat	1	NA	NA	Predicted by equation for metal mixture from data in Kapustka et al., 1995	Phytotox = 42.281918 + 0.039561 (As) - 2.06503 (Cd) + 0.009018 (Cu) + 0.111137 (Pb) - 0.000024 (Zn) - 7.641052 (pH)	
Zinc	379	NA	plants	1	379	NA	Maximum concentration from bioassay indicating unimpacted or nonphytotoxic soils.	Kapustka et al., 1995	Use this since involves mixture; more site-specific since uses pH.
Zinc	***864***	NA	isopods	1	864	NA	NEL for adverse effects on population although individual effects (fewer gravid females, decreased size) observed.	Donker et al., 1993	Population endpoint = assessment endpoint.
Zinc	100	NA	woodlouse	1	100	NA	NOEC	ICF, 1989	
Zinc	662	662	earthworms	1	NA	662	LC50	ICF, 1989	
Zinc	200	NA	Earthworms	1	200	NA	Recommended benchmark value.	Will and Suter, 1995	

[1]Bolded and italicized values are used in the ecological risk assessment calculations

TBV = toxicity benchmark value
COCs = chemicals of concern
NOEC = no observed effect concentration
LOEC = lowest observed effect concentration
BAP = benzo(a)pyrene
LC50 = lethal concentration to 50% of test population
EC50 = effects concentration to 50% of test population
NOEL = no observed effects level

Table 15.2-50 Application of Intertaxon Uncertainty Factors to TBV-Low and TBV-High

Analyte	TBV-Low (mg/kg bw/d)	Species	INTERTAXON/T&E UNCERTAINTY FACTORS									Reference	Comment
			American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon		
Acenaphthene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Acenaphthylene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	2.36	Ring-necked pheasant	5	5	10	5	5	5	NA	NA	NA	see beta-BHC	see BBHC
alpha-Chlordane	1.065	Redwinged blackbird	4	5	10	5	5	5	NA	NA	NA	Opresko et al., 1993	Use as is NOAEL for passerine bird.
alpha-Chlordane	1.2	Mammals	NA	NA	NA	NA	NA	NA	5	5	5	USEPA, 1987c	
Aluminum	963	Ring dove	5	3	10	5	5	5	NA	NA	NA	Carriere et al., 1986	Only avian value
Aluminum	8	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Venugopal and Luckey, 1978	Use this as NEL; higher dietary levels cause effects.
Anthracene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Antimony	1.78	rat	NA	NA	NA	NA	NA	NA	3	4	5	Friberg et al., 1979	Clear endpoint relating to effects on assessment endpoints. Use as LOAEL but w/o toxicity UFs.
Arsenic	14	Mallard	5	5	10	1	5	5	NA	NA	NA	Camardese et al., 1990; Whitworth et al., 1991	Only avian value.
Arsenic	3.8	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Schroeder et al., 1968	Clear endpoint relating to effects on assessment endpoints.
Barium	97	Chicken	5	5	10	5	5	5	NA	NA	NA	Johnson et al., 1960	Only avian value.
Barium	35.6	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Perry et al., 1989	Only value.
Benzo(a) Anthracene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Benzo(a)pyrene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Opresko et al., 1993	Toxicity endpoint appropriate ror assessment endpoints.
Benzo(b) Fluoranthene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Benzo(ghi)perylene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Benzo(k)fluoranthene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Benzyl alcohol	2	Bird	5	5	10	5	5	5	NA	NA	NA	RTECS, 1996	Only value.
Benzyl alcohol	20.8	Rabbit	NA	NA	NA	NA	NA	NA	5	5	5	RTECS, 1996	Only value.
Beryllium	48.5	Poultry	5	5	10	5	5	5	NA	NA	NA	Friberg et al., 1979	Only value.
Beryllium	21.25	Rat	NA	NA	NA	NA	NA	NA	3	4	5	WHO, 1990a	Long term study. Clear endpoint.
Bis(2-ethylhexyl) phthalate	31.2	Chicken	5	5	10	5	5	5	NA	NA	NA	WHO, 1992a	Clear endpoint; starling effect beneficial so inappropriate as TBV.

Table 15.2-50 Application of Intertaxon Uncertainty Factors to TBV-Low and TBV-High

Analyte	TBV-Low (mg/kg bw/d)	Species	INTERTAXON/T&E UNCERTAINTY FACTORS									Reference	Comment
			American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon		
Bis(2-ethylhexyl) phthalate	51	Rat	NA	NA	NA	NA	NA	NA	3	4	5	WHO, 1992a	Clear endpoint.
Butylbenzyl phthalate	31.2	Chicken	5	5	10	5	5	5	NA	NA	NA	see B2EHP for birds	
Butylbenzyl phthalate	51	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see B2EHP for mammals	
Cadmium	0.4	Mallard	5	5	10	1	5	5	NA	NA	NA	White and Finley, 1978	Only avian value.
Cadmium	2.5	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Groten et al., 1991	Clear endpoint; primary reference.
Chromium (III)	1.28	Tern	5	5	10	5	4	5	NA	NA	NA	CEPA, 1994b	Use this study as it relates directly to assessment endpoint; test species related to receptor species.
Chromium (III)	20	Cat	NA	NA	NA	NA	NA	NA	5	5	4	NAS, 1974a	Use this study as it is long-term; dietary exposure.
Chrysene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Cobalt	504	Duckling	5	5	10	2	5	5	NA	NA	NA	EPA, 1993d; Friberg et al., 1979	Only avian value.
Cobalt	2.4	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Domingo, 1994	Endpoint relates to assessment endpoint.
Copper	55.29	Chicken	5	5	10	5	5	5	NA	NA	NA	Mehring et al., 1960	Long-term study with clear endpoints.
Copper_noncarn	13	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Friberg et al., 1979	Use for non-carnivores. Actually a beneficial effect so if HQs high, check literature.
Copper_carn	7.865	Mink	NA	NA	NA	NA	NA	NA	5	5	4	Aulerich et al., 1982	Use for carnivores.
Cyanide	0.06	Mouse	NA	NA	NA	NA	NA	NA	3	4	5	Jorgensen et al., 1991	
delta-BHC	2.36	Ring-necked pheasant	5	5	10	5	5	5	NA	NA	NA	see beta-BHC	
Diazinon	490	Pig	NA	NA	NA	NA	NA	NA	5	5	5	RTECS, 1996 (Toxicol. Appl. Pharmacol, 18:285, 1971)	
Dibenzo(a,h) Anthracene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	*see Benzo(a)pyrene*	use BAP
Dichlorobenzene-nonspecific	25	Mouse, rat	NA	NA	NA	NA	NA	NA	3	4	5	see 1,2 DCB	see 12 DCB
Dichlorvos	1.6	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Desi and Nagymajtenyi, 1988.	Long-term study resulting in NOAEL.
Diethyl phthalate	31.2	Chicken	5	5	10	5	5	5	NA	NA	NA	see B2EHP for birds	
Diethyl phthalate	51	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see B2EHP for mammals	
Dibutyl phthalate	1.1	Ring dove	5	3	10	5	5	5	NA	NA	NA	Peakall, 1974	
1,2-Dichlorobenzene	25	Mouse, rat	NA	NA	NA	NA	NA	NA	3	4	5	CEPA, 1993a	Less extrapolation than using the inhalation study.
1,3-Dichlorobenzene	25	Mouse, rat	NA	NA	NA	NA	NA	NA	3	4	5	see 12 DCB	see 12 DCB

Table 15.2-50 Application of Intertaxon Uncertainty Factors to TBV-Low and TBV-High

Analyte	TBV-Low (mg/kg bw/d)	Species	INTERTAXON/T&E UNCERTAINTY FACTORS									Reference	Comment
			American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon		
1,4-Dichlorobenzene	25	Mouse, rat	NA	NA	NA	NA	NA	NA	3	4	5	see 12 DCB	see 12 DCB
Dichloromethane	5	Rat	NA	NA	NA	NA	NA	NA	3	4	5	CEPA, 1993b	Chronic lifetime no effect level.
2,4-Dichlorophenoxyacetic acid_CARN	2	Dog	NA	NA	NA	NA	NA	NA	5	5	4	Sax, 1992	Use this value for carnivores.
2,4-Dichlorophenoxyacetic acid_noncarn	7.36	Mouse	NA	NA	NA	NA	NA	NA	3	4	5	Sax, 1992	Test species more closely related to site receptors than rabbut,
Dieldrin	0.5	Barn owl	5	5	10	5	5	5	NA	NA	NA	Mendenhall et al., 1983	Relates to assessment endpoint. Barn owl related to raptors.
Dieldrin_carn	0.05	Dog	NA	NA	NA	NA	NA	NA	5	5	4	Walker et al., 1969	Relates to assessment endpoint. Use for carnivores.
Dieldrin_noncarn	0.26	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Newell et al., 1987	Relates to assessment endpoint. Use for non-carnivores.
Endosulfan I	0.624	Mallard	5	5	10	1	5	5	NA	NA	NA	Hudson et al., 1984	Only value
Endosulfan II	0.624	Mallard	5	5	10	1	5	5	NA	NA	NA	See endosulfan I	See endosulfan I
Endosulfan Sulfate	0.624	Mallard	5	5	10	1	5	5	NA	NA	NA	See endosulfan I	See endosulfan I
Endrin	0.0315	Mallard	5	5	10	1	5	5	NA	NA	NA	Roylance et al., 1985	Long term study. Relates to assessment endpoints.
Endrin	9.048	Short-tailed shrew	NA	NA	NA	NA	NA	NA	5	5	5	Blus, 1978	Only value.
Endrin Aldehyde	0.0315	Mallard	5	5	10	1	5	5	NA	NA	NA	see endrin	see endrin
Endrin Aldehyde	9.048	Short-tailed shrew	NA	NA	NA	NA	NA	NA	5	5	5	see endrin	see endrin
Endrin Ketone	0.0315	Mallard	5	5	10	1	5	5	NA	NA	NA	see endrin	see endrin
Endrin Ketone	9.048	Short-tailed shrew	NA	NA	NA	NA	NA	NA	5	5	5	see endrin	see endrin
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Fluorene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Fluoride	1.6	Rat	NA	NA	NA	NA	NA	NA	3	4	5	CEPA, 1993c	Clear endpoint. Lower dosages in other studies have beneficial or unclear effects.
gamma-BHC (Lindane)	0.97	Chicken	5	5	10	5	5	5	NA	NA	NA	Ritchey et al., 1972	Long term study.
gamma-Chlordane	1.065	Redwinged blackbird	4	5	10	5	5	5	NA	NA	NA	Opresko et al., 1993	Only value.
Heptachlor	0.97	Chicken	5	5	10	5	5	5	NA	NA	NA	Ritchey et al., 1972	Long term study.

Table 15.2-50 Application of Intertaxon Uncertainty Factors to TBV-Low and TBV-High

Analyte	TBV-Low (mg/kg bw/d)	Species	INTERTAXON/T&E UNCERTAINTY FACTORS									Reference	Comment
			American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon		
Heptachlor Epoxide	0.97	Chicken	5	5	10	5	5	5	NA	NA	NA	See heptachlor	See heptachlor
Indeno(1,2,3-cd) Pyrene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Iron	390	Bird	5	5	10	5	5	5	NA	NA	NA	NA	Remain above nutritional requirement for TBVs to be technically defensible.
Iron	100	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Venugopal and Luckey, 1978	Remain above nutritional requirement for TBVs to be technically defensible.
Lead	14.5	Kestrel	5	5	4	5	5	4	NA	NA	NA	Franson et al., 1983; Pattee, 1984; Hoffman et al., 1985a,b	Study concerns assessment endpoint and has test species closely related to site receptor species.
Lead (acetate)	11.985	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Azar et al., 1973	Study concerns assessment endpoint and has test species closely related to site receptor species. Long term study.
Manganese	410	Bird	5	5	10	5	5	5	NA	NA	NA	NA	Only suggested value.
Manganese	200	Rat, mouse	NA	NA	NA	NA	NA	NA	3	4	5	NTP, 1993	Chronic study resulting in NOAEL and LOAEL.
Methyl ethyl ketone	50	Rat	NA	NA	NA	NA	NA	NA	3	4	5	WHO, 1990b	Only value
2-Methylnapthalene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Mercury	2.5	Chicken	5	5	10	5	5	5	NA	NA	NA	Thaxton et al., 1975; Thaxton and Parkhurst, 1973; Nicholson and Osborn, 1984.	Only inorganic avian data.
Mercury	0.78	Mouse	NA	NA	NA	NA	NA	NA	3	4	5	Mitsumori et al., 1981	Use this study as mice may be more sensitive than rats based on Fitzhugh et al., 1950 study.
Methoxychlor	40	Mallard, sharp-tailed grouse, California quail	5	5	10	1	5	5	NA	NA	NA	Hudson et al., 1984	Only value.
n-hexane	114	rat	NA	NA	NA	NA	NA	NA	3	4	5	EPA, 1994a	Only value.
Naphthalene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Nickel	17.46	Chicken	5	5	10	5	5	5	NA	NA	NA	Venugopal and Luckey, 1978.	Only avian value.
Nickel_noncarn	31.6	Rat	NA	NA	NA	NA	NA	NA	3	4	5	RTECs, 1996	Use this study for non-carnivores as rat related to two site receptors. Long term.
Nickel_carn	12	Cat, dog	NA	NA	NA	NA	NA	NA	5	5	4	Venugopal and Luckey, 1978	Use this study for carnivores. Long term.
Nitrate, nitrite-nonspecific	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 15.2-50 Application of Intertaxon Uncertainty Factors to TBV-Low and TBV-High

Analyte	TBV-Low (mg/kg bw/d)	Species	INTERTAXON/T&E UNCERTAINTY FACTORS									Reference	Comment
			American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon		
PCB-1254	0.18	Ring-necked pheasant	5	5	10	5	5	5	NA	NA	NA	Dahlgren et al., 1972	Longest avian study. Appear more sensitive than ducks.
PCB-1254	0.34	mouse	NA	NA	NA	NA	NA	NA	3	4	5	Linzey, 1988	Longest study. Test receptor related to site receptors.
Phenanthrene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
ppDDD	0.3	bald eagle	5	5	8	5	5	3	NA	NA	NA	see DDT	see ppDDT
ppDDD	8.5	mouse	NA	NA	NA	NA	NA	NA	3	4	5	see DDT	see ppDDT
ppDDE	0.6	barn owl	5	5	10	5	5	5	NA	NA	NA	Mendenhall et al., 1983	
ppDDE	8.5	mouse	NA	NA	NA	NA	NA	NA	3	4	5	see DDT	see ppDDT
ppDDT	0.3	bald eagle	5	5	8	5	5	3	NA	NA	NA	Chura and Stewart, 1967; Stickel et al., 1966	Lower TBV than owl study; results consistent with kestrel, mallard study.
ppDDT	8.5	mouse	NA	NA	NA	NA	NA	NA	3	4	5	Turasov et al., 1973	Chronic study; appropriate toxicity endpoints relating to assessment endpoints.
Pyrene	1	Rat	NA	NA	NA	NA	NA	NA	3	4	5	see Benzo(a)pyrene	use BAP
Selenium	0.66	Chicken	5	5	10	5	5	5	NA	NA	NA	Ort and Latshaw, 1978	Appropriate toxicity endpoints relative to assessment endpoint. Must remain above required nutrient level.
Selenium	0.114	Mouse	NA	NA	NA	NA	NA	NA	3	4	5	Opresko et al., 1993	Appropriate toxicity endpoints relative to assessment endpoint. Must remain above required nutrient level.
Silver	17.46	Turkey	5	5	10	5	5	5	NA	NA	NA	Friberg et al., 1979	Only avian value.
Silver	65	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Walker, 1971	Both mammalian studies have consistent results.
Tetrachloroethylene	4	Mouse	NA	NA	NA	NA	NA	NA	3	4	5	CEPA, 1993d	Appropriate toxicity endpoint relative to assessment endpoint. Avoid extrapolating from inhalation when possible.
Thallium	0.474	Ring-necked pheasant	5	5	10	5	5	5	NA	NA	NA	Hudson et al., 1984	Only avian value.
Thallium	0.3	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Roll and Matthiaschk, 1981	Best study. Reproduction a more sensitive endpoint than overt mortality.
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total petroleum hydrocarbons	126	mallard	5	5	10	1	5	5	NA	NA	NA	Stubblefield et al., 1995a	Only avian value.
Total petroleum hydrocarbons	1000	ferret	NA	NA	NA	NA	NA	NA	5	5	4	Stubblefield et al., 1995b	Best mammalian study as it was multiple dose, not single dose.
Toxaphene	0.398	Sharp-tailed grouse	5	5	10	5	5	5	NA	NA	NA	Hudson et al., 1984	Only value.

Table 15.2-50 Application of Intertaxon Uncertainty Factors to TBV-Low and TBV-High

Analyte	TBV-Low (mg/kg bw/d)	Species	INTERTAXON/T&E UNCERTAINTY FACTORS									Reference	Comment
			American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon		
1,1,1-Trichloroethane	114	Rabbit, guinea pig, rat	NA	NA	NA	NA	NA	NA	3	4	5	Jorgensen et al., 1991	Only value. Multiple species.
Trichloroethylene	100	Mouse	NA	NA	NA	NA	NA	NA	3	4	5	CEPA, 1993e	Chronic oral study.
Vanadium	0.485	Chicken	5	5	10	5	5	5	NA	NA	NA	Cervantes and Jensen, 1986	Data highly conflicting- dont use toxicity UFs on this.
Vanadium	0.05	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Friberg et al., 1979	Use this value but discuss in uncertainty section if a driver.
Xylenes	125	Rat	NA	NA	NA	NA	NA	NA	3	4	5	CEPA, 1993f	Use this - toxicity endpoint not closely relates to population effects so don't apply toxicity UFs. Toxicity endpoints relate to assessment endpoints.
Zinc	37.8	Mallard	5	5	10	1	5	5	NA	NA	NA	Gasaway and Buss, 1972	Appropriate endpoint. Long study.
Zinc	170	Rat	NA	NA	NA	NA	NA	NA	3	4	5	Schlicker and Cox, 1968	Use this. Consistent with other rat study as well.

TBV = toxicity benchmark value
T&E = threatened and endangered species
B2EHP = bis(2-ethylhexyl) phthalate
BAP = benzo(a)pyrene
BBHC = beta-BHC
12DCB = 1,2-dichlorobenzene
LOAEL = lowest observed adverse effects level
NEL = no effect level
NOAEL = no observed adverse effects level
UF = uncertainty factor
NA = not applicable

Table 15.2-51 Final TBV-Low Values Used in the Ecological Risk Assessment

Analyte	FINAL LOW-TBVS (mg/kg bw/d)								
	American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon
Acenaphthene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Acenaphthylene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.47	0.47	0.24	0.47	0.47	0.47	NA	NA	NA
alpha-Chlordane	0.27	0.21	0.11	0.21	0.21	0.21	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	0.24	0.24	0.24
Aluminum	192.60	321.00	96.30	192.60	192.60	192.60	NA	NA	NA
Aluminum	NA	NA	NA	NA	NA	NA	2.67	2.00	1.60
Anthracene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Antimony	NA	NA	NA	NA	NA	NA	0.59	0.45	0.36
Arsenic	2.80	2.80	1.40	14.00	2.80	2.80	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	1.27	0.95	0.76
Barium	19.40	19.40	9.70	19.40	19.40	19.40	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	11.87	8.90	7.12
Benzo(a) Anthracene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Benzo(b) Fluoranthene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Benzyl alcohol	0.40	0.40	0.20	0.40	0.40	0.40	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	4.16	4.16	4.16
Beryllium	9.70	9.70	4.85	9.70	9.70	9.70	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	7.08	5.31	4.25
Bis(2-ethylhexyl) phthalate	6.24	6.24	3.12	6.24	6.24	6.24	NA	NA	NA
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	17.00	12.75	10.20
Butylbenzyl phthalate	6.24	6.24	3.12	6.24	6.24	6.24	NA	NA	NA
Butylbenzyl phthalate	NA	NA	NA	NA	NA	NA	17.00	12.75	10.20
Cadmium	0.08	0.08	0.04	0.40	0.08	0.08	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	0.06	0.06	0.06
Chromium (III)	0.26	0.26	0.13	0.26	0.32	0.26	NA	NA	NA
Chromium (III)	NA	NA	NA	NA	NA	NA	4.00	4.00	5.00
Chrysene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Cobalt	100.80	100.80	50.40	252.00	100.80	100.80	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	0.80	0.60	0.48
Copper	11.06	11.06	5.53	11.06	11.06	11.06	NA	NA	NA
Copper_noncarn	NA	NA	NA	NA	NA	NA	26.67	26.67	NA
Copper_carn	NA	NA	NA	NA	NA	NA	NA	NA	1.97
Cyanide	NA	NA	NA	NA	NA	NA	0.02	0.02	0.01
delta-BHC	0.47	0.47	0.24	0.47	0.47	0.47	NA	NA	NA
Diazinon	NA	NA	NA	NA	NA	NA	98.00	98.00	98.00
Dibenzo(a,h) Anthracene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Dichlorobenzene-nonspecific	NA	NA	NA	NA	NA	NA	8.33	6.25	5.00
Dichlorvos	NA	NA	NA	NA	NA	NA	0.53	0.40	0.32
Diethyl phthalate	6.24	6.24	3.12	6.24	6.24	6.24	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	17.00	12.75	10.20
Dibutyl phthalate	0.22	0.37	0.11	0.22	0.22	0.22	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	8.33	6.25	5.00
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	8.33	6.25	5.00
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	8.33	6.25	5.00
Dichloromethane	NA	NA	NA	NA	NA	NA	1.67	1.25	1.00
2,4-Dichlorophenoxyacetic acid_CARN	NA	NA	NA	NA	NA	NA	0.40	0.40	0.50

Table 15.2-51 Final TBV-Low Values Used in the Ecological Risk Assessment

	FINAL LOW-TBVS (mg/kg bw/d)								
Analyte	**American Robin**	**Mourning Dove**	**Peregrine Falcon**	**Mallard Duck**	**Western Sandpiper**	**Red-tailed Hawk**	**Western Harvest Mouse**	**Valley Pocket Gopher**	**Raccoon**
2,4-Dichlorophenoxyacetic acid_noncarn	NA	NA	NA	NA	NA	NA	2.45	1.84	1.47
Dieldrin	0.10	0.10	0.05	0.10	0.10	0.10	NA	NA	NA
Dieldrin_carn	NA	NA	NA	NA	NA	NA	NA	NA	0.01
Dieldrin_noncarn	NA	NA	NA	NA	NA	NA	0.09	0.07	NA
Endosulfan I	0.12	0.12	0.06	0.62	0.12	0.12	NA	NA	NA
Endosulfan II	0.12	0.12	0.06	0.62	0.12	0.12	NA	NA	NA
Endosulfan Sulfate	0.12	0.12	0.06	0.62	0.12	0.12	NA	NA	NA
Endrin	0.01	0.01	0.00	0.03	0.01	0.01	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	1.81	1.81	1.81
Endrin Aldehyde	0.01	0.01	0.00	0.03	0.01	0.01	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	1.81	1.81	1.81
Endrin Ketone	0.01	0.01	0.00	0.03	0.01	0.01	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	1.81	1.81	1.81
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Fluorene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Fluoride	NA	NA	NA	NA	NA	NA	0.53	0.40	0.32
gamma-BHC (Lindane)	0.19	0.19	0.10	0.19	0.19	0.19	NA	NA	NA
gamma-Chlordane	0.27	0.21	0.11	0.21	0.21	0.21	NA	NA	NA
Heptachlor	0.19	0.19	0.10	0.19	0.19	0.19	NA	NA	NA
Heptachlor Epoxide	0.19	0.19	0.10	0.19	0.19	0.19	NA	NA	NA
Indeno(1,2,3-cd) Pyrene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Iron	78.00	78.00	39.00	78.00	78.00	78.00	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	33.33	25.00	20.00
Lead	1.17	1.17	3.63	1.17	1.17	3.63	NA	NA	NA
Lead (acetate)	NA	NA	NA	NA	NA	NA	4.00	3.00	2.40
Manganese	82.00	82.00	41.00	82.00	82.00	82.00	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	66.67	50.00	40.00
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	16.67	12.50	10.00
2-Methylnapthalene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Mercury	0.04	0.04	0.04	0.04	0.04	0.04	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	0.26	0.20	0.16
Methoxychlor	8.00	8.00	4.00	40.00	8.00	8.00	NA	NA	NA
n-hexane	NA	NA	NA	NA	NA	NA	38.00	28.50	22.80
Naphthalene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
Nickel	3.49	3.49	1.75	3.49	3.49	3.49	NA	NA	NA
Nickel_noncarn	NA	NA	NA	NA	NA	NA	10.53	7.90	NA
Nickel_carn	NA	NA	NA	NA	NA	NA	NA	NA	3.00
Nitrate, nitrite-nonspecific	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	0.04	0.04	0.02	0.04	0.04	0.04	NA	NA	NA
PCB-1254	NA	NA	NA	NA	NA	NA	0.11	0.09	0.07
Phenanthrene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20
ppDDD	0.06	0.06	0.04	0.06	0.06	0.10	NA	NA	NA
ppDDD	NA	NA	NA	NA	NA	NA	2.83	2.13	1.70
ppDDE	0.12	0.12	0.06	0.12	0.12	0.12	NA	NA	NA
ppDDE	NA	NA	NA	NA	NA	NA	2.83	2.13	1.70
ppDDT	0.01	0.01	0.01	0.01	0.01	0.01	NA	NA	NA
ppDDT	NA	NA	NA	NA	NA	NA	2.83	2.13	1.70
Pyrene	NA	NA	NA	NA	NA	NA	0.33	0.25	0.20

Table 15.2-51 Final TBV-Low Values Used in the Ecological Risk Assessment

Analyte	FINAL LOW-TBVS (mg/kg bw/d)								
	American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon
Selenium	0.13	0.13	0.07	0.13	0.13	0.13	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	0.04	0.03	0.02
Silver	3.49	3.49	1.75	3.49	3.49	3.49	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	21.67	16.25	13.00
Tetrachloroethylene	NA	NA	NA	NA	NA	NA	1.33	1.00	0.80
Thallium	0.09	0.09	0.05	0.09	0.09	0.09	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	0.10	0.08	0.06
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total petroleum hydrocarbons	25.20	25.20	12.60	126.00	25.20	25.20	NA	NA	NA
Total petroleum hydrocarbons	NA	NA	NA	NA	NA	NA	200.00	200.00	250.00
Toxaphene	0.08	0.08	0.04	0.08	0.08	0.08	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	38.00	28.50	22.80
Trichloroethylene	NA	NA	NA	NA	NA	NA	33.33	25.00	20.00
Vanadium	0.10	0.10	0.05	0.10	0.10	0.10	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	0.02	0.01	0.01
Xylenes	NA	NA	NA	NA	NA	NA	41.67	31.25	25.00
Zinc	7.56	7.56	3.78	37.80	7.56	7.56	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	56.67	42.50	34.00

NA = not available

Table 15.2-52 Final TBV-High Values Used in the Ecological Risk Assessment

	FINAL HIGH-TBVS (mg/kg bw/d)								
Analyte	**American Robin**	**Mourning Dove**	**Peregrine Falcon**	**Mallard Duck**	**Western Sandpiper**	**Red-tailed Hawk**	**Western Harvest Mouse**	**Valley Pocket Gopher**	**Raccoon**
Acenaphthene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Acenaphthylene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	118.00	118.00	118.00	118.00	118.00	118.00	NA	NA	NA
alpha-Chlordane	2.13	2.13	2.13	2.13	2.13	2.13	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	10.40	10.40	10.40
Aluminum	1926.00	1926.00	1926.00	1926.00	1926.00	1926.00	NA	NA	NA
Aluminum	NA	NA	NA	NA	NA	NA	40.00	40.00	40.00
Anthracene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Antimony	NA	NA	NA	NA	NA	NA	1.78	1.78	1.78
Arsenic	42.00	42.00	42.00	42.00	42.00	42.00	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	22.50	22.50	22.50
Barium	194.00	194.00	194.00	194.00	194.00	194.00	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	71.20	71.20	71.20
Benzo(a) Anthracene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Benzo(b) Fluoranthene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Benzyl alcohol	100.00	100.00	100.00	100.00	100.00	100.00	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	1040.00	1040.00	1040.00
Beryllium	485.00	485.00	485.00	485.00	485.00	485.00	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	42.50	42.50	42.50
Bis(2-ethylhexyl) phthalate	156.00	156.00	156.00	156.00	156.00	156.00	NA	NA	NA
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	510.00	510.00	510.00
Butylbenzyl phthalate	156.00	156.00	156.00	156.00	156.00	156.00	NA	NA	NA
Butylbenzyl phthalate	NA	NA	NA	NA	NA	NA	510.00	510.00	510.00
Cadmium	2.00	2.00	2.00	2.00	2.00	2.00	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	24.30	24.30	24.30
Chromium (III)	2.56	2.56	2.56	2.56	2.56	2.56	NA	NA	NA
Chromium (III)	NA	NA	NA	NA	NA	NA	40.00	40.00	40.00
Chrysene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Cobalt	2520.00	2520.00	2520.00	1260.00	2520.00	2520.00	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	12.00	12.00	12.00
Copper	72.65	72.65	72.65	72.65	72.65	72.65	NA	NA	NA
Copper_noncarn	NA	NA	NA	NA	NA	NA	40.00	40.00	NA
Copper_carn	NA	NA	NA	NA	NA	NA	NA	NA	13.00
Cyanide	NA	NA	NA	NA	NA	NA	3.00	3.00	3.00
delta-BHC	118.00	118.00	118.00	118.00	118.00	118.00	NA	NA	NA
Diazinon	NA	NA	NA	NA	NA	NA	2450.00	2450.00	2450.00
Dibenzo(a,h) Anthracene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Dichlorobenzene-nonspecific	NA	NA	NA	NA	NA	NA	50.00	50.00	50.00
Dichlorvos	NA	NA	NA	NA	NA	NA	88.00	88.00	88.00
Diethyl phthalate	156.00	156.00	156.00	156.00	156.00	156.00	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	510.00	510.00	510.00
Dibutyl phthalate	156.00	156.00	156.00	156.00	156.00	156.00	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	50.00	50.00	50.00
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	50.00	50.00	50.00
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	50.00	50.00	50.00

Table 15.2-52 Final TBV-High Values Used in the Ecological Risk Assessment

Analyte	FINAL HIGH-TBVS (mg/kg bw/d)								
	American Robin	Mourning Dove	Peregrine Falcon	Mallard Duck	Western Sandpiper	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon
Dichloromethane	NA	NA	NA	NA	NA	NA	125.00	125.00	125.00
2,4-Dichlorophenoxyacetic acid_CARN	NA	NA	NA	NA	NA	NA	100.00	100.00	100.00
2,4-Dichlorophenoxyacetic acid_noncarn	NA	NA	NA	NA	NA	NA	368.00	368.00	368.00
Dieldrin	1.25	1.25	1.25	1.25	1.25	1.25	NA	NA	NA
Dieldrin_carn	NA	NA	NA	NA	NA	NA	NA	NA	2.60
Dieldrin_noncarn	NA	NA	NA	NA	NA	NA	0.31	0.31	NA
Endosulfan I	31.20	31.20	31.20	31.20	31.20	31.20	NA	NA	NA
Endosulfan II	31.20	31.20	31.20	31.20	31.20	31.20	NA	NA	NA
Endosulfan Sulfate	31.20	31.20	31.20	31.20	31.20	31.20	NA	NA	NA
Endrin	0.19	0.19	0.19	0.19	0.19	0.19	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	180.96	180.96	180.96
Endrin Aldehyde	0.19	0.19	0.19	0.19	0.19	0.19	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	180.96	180.96	180.96
Endrin Ketone	0.19	0.19	0.19	0.19	0.19	0.19	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	180.96	180.96	180.96
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Fluorene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Fluoride	NA	NA	NA	NA	NA	NA	3.20	3.20	3.20
gamma-BHC (Lindane)	30.00	30.00	30.00	30.00	30.00	30.00	NA	NA	NA
gamma-Chlordane	2.13	2.13	2.13	2.13	2.13	2.13	NA	NA	NA
Heptachlor	2080.00	2080.00	2080.00	2080.00	2080.00	2080.00	NA	NA	NA
Heptachlor Epoxide	2080.00	2080.00	2080.00	2080.00	2080.00	2080.00	NA	NA	NA
Indeno(1,2,3-cd) Pyrene	NA	NA	NA	NA	NA	NA	1.00E+01	1.00E+01	1.00E+01
Iron	780.00	780.00	780.00	780.00	780.00	780.00	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	200.00	200.00	200.00
Lead	78.75	78.75	43.50	78.75	78.75	43.50	NA	NA	NA
Lead (acetate)	NA	NA	NA	NA	NA	NA	170.00	170.00	170.00
Manganese	820.00	820.00	820.00	820.00	820.00	820.00	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	615.00	615.00	615.00
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	100.00	100.00	100.00
2-Methylnapthalene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Mercury	12.50	12.50	12.50	12.50	12.50	12.50	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	3.90	3.90	3.90
Methoxychlor	2000.00	2000.00	2000.00	2000.00	2000.00	2000.00	NA	NA	NA
n-hexane	NA	NA	NA	NA	NA	NA	570.00	570.00	570.00
Naphthalene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Nickel	87.30	87.30	87.30	87.30	87.30	87.30	NA	NA	NA
Nickel_noncarn	NA	NA	NA	NA	NA	NA	158.00	158.00	NA
Nickel_carn	NA	NA	NA	NA	NA	NA	NA	NA	158.00
Nitrate, nitrite-nonspecific	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	1.80	1.80	1.80	1.80	1.80	1.80	NA	NA	NA
PCB-1254	NA	NA	NA	NA	NA	NA	1.70	1.70	1.70
Phenanthrene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
ppDDD	3.00	3.00	0.38	3.00	3.00	3.00	NA	NA	NA
ppDDD	NA	NA	NA	NA	NA	NA	43.00	43.00	43.00

Table 15.2-52 Final TBV-High Values Used in the Ecological Risk Assessment

	FINAL HIGH-TBVS (mg/kg bw/d)								
Analyte	**American Robin**	**Mourning Dove**	**Peregrine Falcon**	**Mallard Duck**	**Western Sandpiper**	**Red-tailed Hawk**	**Western Harvest Mouse**	**Valley Pocket Gopher**	**Raccoon**
ppDDE	3.00	3.00	3.00	3.00	3.00	3.00	NA	NA	NA
ppDDE	NA	NA	NA	NA	NA	NA	43.00	43.00	43.00
ppDDT	3.00	3.00	0.38	3.00	3.00	3.00	NA	NA	NA
ppDDT	NA	NA	NA	NA	NA	NA	43.00	43.00	43.00
Pyrene	NA	NA	NA	NA	NA	NA	10.00	10.00	10.00
Selenium	1.32	1.32	1.32	1.32	1.32	1.32	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	0.57	0.57	0.57
Silver	87.30	87.30	87.30	87.30	87.30	87.30	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	130.00	130.00	130.00
Tetrachloroethylene	NA	NA	NA	NA	NA	NA	20.00	20.00	20.00
Thallium	23.70	23.70	23.70	23.70	23.70	23.70	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	3.00	3.00	3.00
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total petroleum hydrocarbons	1260.00	1260.00	1260.00	1260.00	1260.00	1260.00	NA	NA	NA
Total petroleum hydrocarbons	NA	NA	NA	NA	NA	NA	10000.00	10000.00	10000.00
Toxaphene	19.90	19.90	19.90	19.90	19.90	19.90	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	5700.00	5700.00	5700.00
Trichloroethylene	NA	NA	NA	NA	NA	NA	100.00	100.00	100.00
Vanadium	4.85	4.85	4.85	4.85	4.85	4.85	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	20.00	20.00	20.00
Xylenes	NA	NA	NA	NA	NA	NA	500.00	500.00	500.00
Zinc	189.00	189.00	189.00	189.00	189.00	189.00	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	340.00	340.00	340.00

Note: No uncertainty factors have been applied
NA = not available

Table 15.2-53 Summary of Criteria for the Protection of Aquatic Life (page 1 of 2)

Analyte	Freshwater (ug/L)			Saltwater (ug/L)	Sediment (mg/kg)						
	Chronic AWQC or FCV		Tier II	Chronic AWQC or FCV	EPA Freshwater SQC	EPA Marine SQC	EPA SQB	EPA ARCS SEC [1]	Ontario Lower Effect Level (LEL)[2]	Ontario Severe Effect Level (SEL)[2]	NOAA ERL
Inorganics (dissolved)											
Arsenic III	190			36				13.26	6	33	8.2
Arsenic V			8.1								
Barium			3.9								
Beryllium			5.1								
Cadmium	1.0	h		9.3				2.15	0.6	10	1.2
Chromium III	180	h						25.60	26	110	240 [3]
Chromium VI	10			50							
Cobalt			3.0								
Copper	11	h		2.4				49.02	16	110	34
Iron	1000	i						84400	20000	40000	
Lead	2.5	h		8.1				43.54	31	250	47
Manganese			80					726.00	460	1100	
Mercury (inorganic)	1.3	f		1.1	f				0.2	2	0.15
Mercury (organic)			0.003								
Molybdenum			240								
Nickel	160	h		8.2				19.94	16	75	170 [3]
Selenium	5.0			71							
Vanadium			19								
Zinc	100	h		81				124.64	120	820	150
Cyanide	5.2			1.0							
Organics											
Acenaphthene	23	f		40		0.62	1.1				0.016
Anthracene								0.08	0.22	370	
Benzene			46				0.057				
Benzo(a)Pyrene			0.014					0.21	0.37	1440	0.43
Biphenyl			14				1.1				
Bis(2 ethylhexyl)phthalate			32								
Bromophenyl phenyl ether, 4-			1.5				1.3				
Butylbenzyl phthalate			19				11				
Chlorobenzene			130				0.82				
Chlordane									0.007	6	
Chrysene								0.29	0.34	460	
DDTr			0.013						0.007	12	0.002
ppDDD									0.008	6	
ppDDE									0.005	19	
ppDDT									0.008	71	
Diazinon	0.043	f					0.002				
Dibenzofuran			20				2.0				
Dichlorobenzene, 1,2-			14				0.34				
Dichlorobenzene, 1,3-			71				1.7				
Dichlorobenzene, 1,4-			15				0.35				
Dichloroethane, 1,1-			47								
Dieldrin	0.062	f		0.11		0.052	0.095		0.002	91	
Diethyl phthalate			220				0.63				
Di-n-butyl phthalate			33				11				
Endosulfan, mixed isomers			0.051				0.005				
Endosulfan, alpha			0.051				0.003				
Endosulfan, beta			0.051				0.014				
Endrin	0.061	f		0.01		0.02	0.0035		0.003	130	

Table 15.2-53 Summary of Criteria for the Protection of Aquatic Life (page 2 of 2)

Analyte	Freshwater (ug/L)		Saltwater (ug/L)	Sediment (mg/kg)						
	Chronic AWQC or FCV	Tier II	Chronic AWQC or FCV	EPA Freshwater SQC	EPA Marine SQC	EPA SQB	EPA ARCS SEC [1]	Ontario Lower Effect Level (LEL)[2]	Ontario Severe Effect Level (SEL)[2]	NOAA ERL
Ethylbenzene		290				3.6				
Fluoranthene	6.2 [4] f		3 [4]	2.9	1.4		0.10	0.75	1020	0.6
Fluorene		3.9				0.54	0.05	0.19	160	
Heptachlor		0.0069						0.005	5	
Hexachloroethane		12				1.0				
Lindane/Hexachlorocyclohexane	0.08					0.004		0.003	1	
Malathion		0.097				7E-04				
Methoxychlor		0.019				0.019				
Napthalene		24				0.48	0.04			0.16
Pentachlorobenzene		0.47				0.69				
Pentachlorophenol	13 pH		7.9							
PAHs							1.70	2	11000	4
PCBs		0.19					0.05	0.07	530	0.023
Phenanthrene	6.3 f		8.3	0.85	1.1		0.26			0.24
Pyrene							0.24	0.49	850	0.66
Tetrachloroethane 1,1,2,2-		420				0.94				
Tetrachloroethylene		120				0.53				
Tetrachloromethane		240				1.2				
Toluene		130				0.67				
Toxaphene		0.011	0.21 f			0.028				
Tribromomethane		320				0.65				
Trichlorobenzene, 1,2,4-		110				9.2				
Trichloroethane, 1,1,1-		62				0.17				
Trichloroethylene		350				1.6				
Xylene, m		1.8				0.025				

Source unless otherwise noted: EPA, 1996b (ECO Update, Ecotox Thresholds, Intermittent Bulletin, Vol. 3, No. 2)

[1] Average of listed effects range-low (ERL) values for each analyte from EPA, 1996b

[2] Source for Ontario LEL and SEL (Ontario, 1992.) SEL must be multiplied by TOC.

[3] Apparent Effects Threshold (AET) for San Francisco Bay (State Water Resources Control Board, 1990)

[4] Current cited values of 8.1 for freshwater and 11 for saltwater will be corrected to 6.2 and 3 ug/L, respectively (pers. comm. with L. Suer-

f - Final Chronic Value (FCV);
h - hardness dependent ambient water quality criterion (100 mg/L CaCO3 used in table)
i - instantaneous maximum
pH - pH dependent ambient water quality criterion (7.8 pH used in table)
AWQC - Ambient Water Quality Criteria
FCV - Final Chronic Value
Tier II - Great Lakes Water Quality Initiative Tier II methodology
SQC - Sediment Quality Criteria
SQB -Sediment Quality Benchmarks by equilibrium partitioning assuming 1% organic carbon
ARCS SEC - Assessment and Remediation of Contaminated Sediments, Sediment Effect Concentration
ERL - Effects Range –Low (Long et al., 1995)

Saltwater criteria and objectives are presented on Table 3.8-6.

Water quality objectives adopted by the Regional Water Quality Control Board in 1986 are not presented to avoid confusion with final water quality standards for California that will be promulgated.

Table 15.2-54 Toxicity Benchmark Values for Amphibians

Analyte	Species	Endpoint	Endpoint	Reference
Anthracene	Frog *(Rana pipiens)*	25	24 hr LC50 range from 25-110 ug/L.	Devillers and Exbrayat, 1992
PCB-1016	Toad *(Bufo americanus)*	7.16	LC50 (fertilization to 4 days post hatching)	Devillers and Exbrayat, 1992
	Toad *(Bufo fowleri)*	27.72	LC50 (fertilization to 4 days post hatching)	Devillers and Exbrayat, 1992
PCB-1242	Toad *(Bufo americanus)*	2.71	LC50 (fertilization to 4 days post hatching)	Devillers and Exbrayat, 1992
	Toad *(Bufo fowleri)*	12.09	LC50 (fertilization to 4 days post hatching)	Devillers and Exbrayat, 1992
PCB-1254	Toad *(Bufo americanus)*	2.02	LC50 (fertilization to 4 days post hatching)	Devillers and Exbrayat, 1992
	Toad *(Bufo fowleri)*	3.74	LC50 (fertilization to 4 days post hatching)	Devillers and Exbrayat, 1992
TPH (used crankcase oil)	Green treefrog *(Hyla cinerea)*	10000	No effect on hatching success up to 100 mg/L. 55 mg/L LEL for tadpole and algal growth. 10 mg/L the NEL.	Mahaney, 1994
Aluminum	Toad *(Bufo americanus)*	627	96 hr LC50 range from 0.627 to >1.762	Devillers and Exbrayat, 1992
Aluminum	Frog *(Rana pipiens)*	403	96 hr LC50 0.403 to >1.018 mg/L	Devillers and Exbrayat, 1992
Cadmium	Frog *(Xenopus laevis)*	9	NTEL (mortality, body weight, inhibition of larval development) range 9 to 30 ug/L	Devillers and Exbrayat, 1992
Lead	Toad *(Bufo arenarum)*	470	48 hr LC50 range from 0.47 to 0.9 mg/L	Devillers and Exbrayat, 1992
Zinc	Frog *(Xenopus laevis)*	3600	EC50 (malformations)	Devillers and Exbrayat, 1992

UF = uncertainty factor

Table 15.2-55 Hazard Indices for Exposure to Shallow Soils (<3ft) at the Nike Facility (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
2-Methylnapthalene	0.256	No TBV	No TBV	No TBV	No TBV	7E-03	2E-03	9E-06	No TBV
Anthracene	1.640224	No TBV	No TBV	No TBV	No TBV	4E-02	1E-02	6E-05	No TBV
Arsenic	69.34182	4E+00	5E-01	1E-02	2E-04	5E-01	1E-01	7E-04	7E+00
Bis(2-ethylhexyl) pthalate	1.47685	4E-02	5E-03	1E-04	2E-06	8E-04	2E-04	1E-06	1E-02
Benzo[*a*]anthracene	1.681534	No TBV	No TBV	No TBV	No TBV	4E-02	1E-02	6E-05	6E-02
Benzo[*a*]pyrene	1.577646	No TBV	No TBV	No TBV	No TBV	4E-02	9E-03	6E-05	5E-02
Benzo[*b*]fluoranthene / 3,4-Benzofluoranthene	1.337087	No TBV	No TBV	No TBV	No TBV	4E-02	8E-03	5E-05	4E-02
Butylbenzyl pthalate	2.7	7E-02	9E-03	2E-04	4E-06	1E-03	3E-04	2E-06	No TBV
Benzo[*k*]fluoranthene	0.918704	No TBV	No TBV	No TBV	No TBV	2E-02	5E-03	3E-05	No TBV
Trichlorofluoromethane	0.006	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	1.581617	No TBV	No TBV	No TBV	No TBV	4E-02	9E-03	6E-05	5E-02
Copper	173.1242	2E+01	2E+00	7E-03	7E-04	2E+00	2E-01	4E-03	3E+00
Fluoranthene	3.817636	No TBV	No TBV	No TBV	No TBV	1E-01	2E-02	1E-04	1E-01
Fluorene / 9*H*-Fluorene	1.341849	No TBV	No TBV	No TBV	No TBV	4E-02	8E-03	5E-05	4E-02
Methoxychlor	0.3	6E-03	8E-04	2E-05	4E-07	No TBV	No TBV	No TBV	No TBV
Lead	1114.694	2E+03	4E+02	2E+00	8E-02	1E+01	3E+00	5E-03	2E+00
PCB	0.116	1E+01	7E-02	2E-02	2E-03	5E-01	3E-03	2E-04	3E-03
Phenanthrene	3.138561	No TBV	No TBV	No TBV	No TBV	8E-02	2E-02	1E-04	1E-01
Phenol	0.5	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
PPDDD	0.04	2E+00	2E-02	8E-03	7E-05	5E-03	4E-05	2E-06	1E-03
Pyrene	3.450224	No TBV	No TBV	No TBV	No TBV	9E-02	2E-02	1E-04	1E-01
Selenium	0.687675	6E+01	1E+01	1E-02	3E-04	6E+01	1E+01	9E-03	7E-01
TPH-Diesel	1400	8E+00	1E+00	2E-02	5E-04	6E-02	1E-02	4E-05	No TBV
Zinc	554.7745	8E+01	1E+01	3E-02	7E-04	2E+00	5E-01	5E-04	1E+01
Sum		**2E+03**	**4E+02**	**2E+00**	**9E-02**	**8E+01**	**2E+01**	**2E-02**	**3E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-55 Hazard Indices for Exposure toShallow Soils (<3ft) at the Nike Facility (page 2 of 2).

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
2-Methylnapthalene	0.256	No TBV	No TBV	No TBV	No TBV	2E-04	4E-05	2E-07	No TBV
Anthracene	1.640224	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	1E-06	No TBV
Arsenic	69.34182	2E-01	3E-02	4E-04	2E-05	3E-02	4E-03	2E-05	3E-01
Bis(2-ethylhexyl) pthalate	1.47685	1E-03	2E-04	2E-06	9E-08	3E-05	4E-06	2E-08	1E-03
Benzo[*a*]anthracene	1.681534	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	1E-06	3E-02
Benzo[*a*]pyrene	1.577646	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	1E-06	3E-02
Benzo[*b*]fluoranthene / 3,4-Benzofluoranthene	1.337087	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	1E-06	3E-02
Butylbenzyl pthalate	2.7	3E-03	4E-04	4E-06	2E-07	5E-05	8E-06	4E-08	No TBV
Benzo[*k*]fluoranthene	0.918704	No TBV	No TBV	No TBV	No TBV	8E-04	1E-04	7E-07	No TBV
Trichlorofluoromethane	0.006	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	1.581617	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	1E-06	3E-02
Copper	173.1242	3E+00	3E-01	5E-04	1E-04	4E+00	5E-01	5E-04	4E-01
Fluoranthene	3.817636	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	3E-06	8E-02
Fluorene / 9*H*-Fluorene	1.341849	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	1E-06	3E-02
Methoxychlor	0.3	2E-05	3E-06	3E-08	1E-09	No TBV	No TBV	No TBV	No TBV
Lead	1114.694	2E+01	4E+00	2E-02	8E-04	3E-01	6E-02	6E-05	1E+00
PCB	0.116	2E-01	1E-03	2E-04	4E-05	3E-02	1E-04	7E-06	5E-04
Phenanthrene	3.138561	No TBV	No TBV	No TBV	No TBV	3E-03	5E-04	2E-06	6E-02
Phenol	0.5	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
PPDDD	0.04	4E-02	3E-04	8E-04	2E-06	4E-04	2E-06	8E-08	2E-04
Pyrene	3.450224	No TBV	No TBV	No TBV	No TBV	3E-03	5E-04	2E-06	7E-02
Selenium	0.687675	1E+01	2E+00	1E-03	5E-05	4E+00	7E-01	4E-04	1E-02
TPH-Diesel	1400	2E-01	2E-02	2E-04	1E-05	2E-03	4E-04	2E-06	No TBV
Zinc	554.7745	3E+00	4E-01	6E-04	3E-05	4E-01	6E-02	5E-05	6E-01
Sum		**4E+01**	**6E+00**	**2E-02**	**1E-03**	**8E+00**	**1E+00**	**1E-03**	**3E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-56 Hazard Indices for Modeled Aquatic Exposures South of the Nike Facility (page 1 of 2)

HI HIGH

Analyte	Water EPC[a] (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Amphibians[1]	Mallard Duck[2]	Sand Piper[2]	Raccoon[2]	American Robin[3]	Mourning Dove[3]	Peregrine Falcon[3]	Red-tailed Hawk[3]	Western Harvest Mouse[3]	Valley Pocket Gopher[3]
2-Methylnapthalene	2.42E-06	0.027	No TBV	No TBV	No TBV	No TBV	No TBV	2E-04	No TBV	No TBV	No TBV	No TBV	2E-09	NA
Anthracene	5.08E-05	0.559	No TBV	7E+00	No TBV	No TBV	No TBV	5E-03	No TBV	No TBV	No TBV	No TBV	4E-08	NA
Arsenic		13.628	No TBV	2E+00	No TBV	2E-03	2E-01	3E-02	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Bis(2-ethylhexyl) pthalate		0.406	No TBV	No TBV	No TBV	1E-04	2E-03	6E-05	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Benzo[*a*]anthracene	1.63E-05	0.312	No TBV	No TBV	No TBV	No TBV	No TBV	3E-03	No TBV	No TBV	No TBV	No TBV	1E-08	NA
Benzo[*a*]pyrene	8.24E-06	0.498	6E-04	2E+00	6E-04	No TBV	No TBV	4E-03	No TBV	No TBV	No TBV	No TBV	6E-09	NA
Benzo[*b*]fluoranthene	1.65E-05	0.181	No TBV	No TBV	No TBV	No TBV	No TBV	1E-03	No TBV	No TBV	No TBV	No TBV	1E-08	NA
Butylbenzyl pthalate		0.747	No TBV	7E-02	No TBV	2E-04	4E-03	1E-04	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Benzo[*k*]fluoranthene	1.52E-05	0.168	No TBV	No TBV	No TBV	No TBV	No TBV	1E-03	No TBV	No TBV	No TBV	No TBV	1E-08	NA
Trichlorofluoromethane		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Chrysene	6.81E-05	0.441	No TBV	2E+00	No TBV	No TBV	No TBV	4E-03	No TBV	No TBV	No TBV	No TBV	5E-08	NA
Copper		46.897	No TBV	3E+00	No TBV	7E-03	1E-01	4E-02	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Fluoranthene	7.72E-05	0.850	3E-05	8E+00	3E-05	No TBV	No TBV	7E-03	No TBV	No TBV	No TBV	No TBV	6E-08	NA
Fluorene / 9*H*-Fluorene	3.44E-05	0.378	9E-06	8E+00	9E-06	No TBV	No TBV	3E-03	No TBV	No TBV	No TBV	No TBV	3E-08	NA
Methoxychlor		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Lead		119.518	No TBV	4E+00	No TBV	2E+00	3E+01	8E-02	No TBV	No TBV	No TBV	No TBV	No TBV	NA
PCB		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Phenanthrene	5.61E-05	0.617	9E-06	3E+00	9E-06	No TBV	No TBV	5E-03	No TBV	No TBV	No TBV	No TBV	4E-08	NA
PPDDD		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Pyrene	7.25E-05	0.798	No TBV	3E+00	No TBV	No TBV	No TBV	6E-03	No TBV	No TBV	No TBV	No TBV	5E-08	NA
Selenium		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TPH-Diesel		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Zinc		153.501	No TBV	1E+00	No TBV	7E-03	7E-01	7E-03	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sum			**6E-04**	**4E+01**	**6E-04**	**2E+00**	**3E+01**	**2E-01**					**3E-07**	

[a] *concentration modeled with equilibrium partitioning*

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - *not applicable*

Table 15.2-56 Hazard Indices for Modeled Aquatic Exposures South of the Nike Facility (page 2 of 2)

HI Low

Analyte	Water EPC[a] (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Amphibians[1]	Mallard Duck[2]	Sand Piper[2]	Raccoon[2]	American Robin[3]	Mourning Dove[3]	Peregrine Falcon[3]	Red-tailed Hawk[3]	Western Harvest Mouse[3]	Valley Pocket Gopher[3]
2-Methylnapthalene	2.42E-06	0.027	No TBV	No TBV	No TBV	No TBV	No TBV	4E-06	No TBV	No TBV	No TBV	No TBV	6E-11	NA
Anthracene	5.08E-05	0.559	No TBV	1E-01	No TBV	No TBV	No TBV	9E-05	No TBV	No TBV	No TBV	No TBV	1E-09	NA
Arsenic		13.628	No TBV	4E-01	No TBV	6E-04	1E-02	1E-03	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Bis(2-ethylhexyl) pthalate		0.406	No TBV	No TBV	No TBV	5E-06	9E-05	1E-06	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Benzo[*a*]anthracene	1.63E-05	0.312	No TBV	No TBV	No TBV	No TBV	No TBV	5E-05	No TBV	No TBV	No TBV	No TBV	4E-10	NA
Benzo[*a*]pyrene	8.24E-06	0.498	6E-04	3E-02	6E-04	No TBV	No TBV	8E-05	No TBV	No TBV	No TBV	No TBV	2E-10	NA
Benzo[*b*]fluoranthene	1.65E-05	0.181	No TBV	No TBV	No TBV	No TBV	No TBV	3E-05	No TBV	No TBV	No TBV	No TBV	4E-10	NA
Butylbenzyl pthalate		0.747	No TBV	7E-02	No TBV	9E-06	2E-04	2E-06	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Benzo[*k*]fluoranthene	1.52E-05	0.168	No TBV	No TBV	No TBV	No TBV	No TBV	3E-05	No TBV	No TBV	No TBV	No TBV	4E-10	NA
Trichlorofluoromethane		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Chrysene	6.81E-05	0.441	No TBV	9E-02	No TBV	No TBV	No TBV	7E-05	No TBV	No TBV	No TBV	No TBV	2E-09	NA
Copper		46.897	No TBV	4E-01	No TBV	1E-03	2E-02	6E-03	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Fluoranthene	7.72E-05	0.850	1E-05	8E-02	1E-05	No TBV	No TBV	1E-04	No TBV	No TBV	No TBV	No TBV	2E-09	NA
Fluorene / 9*H*-Fluorene	3.44E-05	0.378	9E-06	2E-01	9E-06	No TBV	No TBV	6E-05	No TBV	No TBV	No TBV	No TBV	9E-10	NA
Methoxychlor		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Lead		119.518	No TBV	5E-01	No TBV	1E-02	3E-01	1E-03	No TBV	No TBV	No TBV	No TBV	No TBV	NA
PCB		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Phenanthrene	5.61E-05	0.617	7E-06	6E-01	7E-06	No TBV	No TBV	1E-04	No TBV	No TBV	No TBV	No TBV	1E-09	NA
PPDDD		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Pyrene	7.25E-05	0.798	No TBV	9E-02	No TBV	No TBV	No TBV	1E-04	No TBV	No TBV	No TBV	No TBV	2E-09	NA
Selenium		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TPH-Diesel		NA	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Zinc		153.501	No TBV	2E-01	No TBV	No TBV	3E-02	7E-04	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sum			**6E-04**	**3E+00**	**6E-04**	**2E-02**	**3E-01**	**9E-03**					**1E-08**	

[a] concentration modeled with equilibrium partitioning

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-57 Hazard Indices for Shallow Soils (< 3ft) at Buildings 640 and 643, Consolidated Motor Pool Area, Crissy Field Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Bis(2-ethylhexyl) phthalate	6.2	1E-01	2E-02	9E-05	2E-06	3E-03	7E-04	9E-07	6E-02
Barium	229.02	2E+00	2E-01	1E-03	2E-05	2E-01	4E-02	5E-05	5E-01
Butylbenzyl phthalate	0.18	4E-03	6E-04	3E-06	6E-08	9E-05	2E-05	3E-08	No TBV
Cadmium	4.725685	3E+02	6E+00	6E-03	1E-04	6E+01	2E+00	2E-03	2E+00
Chrysene	0.088	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	6E-07	3E-03
Cobalt	39.7	6E-02	8E-03	3E-05	8E-07	4E-01	1E-01	1E-04	2E+00
Chromium	192.61	1E+02	2E+01	7E-02	1E-03	4E-01	7E-02	6E-05	5E+02
Fluoranthene	0.145079	No TBV	No TBV	No TBV	No TBV	4E-03	9E-04	1E-06	5E-03
Nickel	369.152	2E+01	2E+00	9E-03	2E-04	3E-01	7E-02	2E-04	1E+01
Lead	1429.601	3E+03	5E+02	5E-01	2E-02	2E+01	4E+00	1E-03	3E+00
Phenanthrene	0.189986	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	1E-06	6E-03
Pyrene	0.064151	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	5E-07	2E-03
Total petroleum hydrocarbons	630.081	4E+00	5E-01	2E-03	5E-05	3E-02	5E-03	4E-06	No TBV
TPH, diesel fraction	90	5E-01	8E-02	3E-04	7E-06	4E-03	7E-04	5E-07	No TBV
Zinc	400.8715	6E+01	7E+00	5E-03	1E-04	2E+00	3E-01	8E-05	8E+00
Sum		**3E+03**	**5E+02**	**6E-01**	**2E-02**	**8E+01**	**7E+00**	**4E-03**	**5E+02**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Bis(2-ethylhexyl) phthalate	6.2	6E-03	8E-04	2E-06	8E-08	1E-04	2E-05	2E-08	6E-03
Barium	229.02	2E-01	2E-02	5E-05	2E-06	6E-02	9E-03	9E-06	5E-01
Butylbenzyl phthalate	0.18	2E-04	2E-05	5E-08	2E-09	3E-06	5E-07	5E-10	No TBV
Cadmium	4.725685	1E+01	2E-01	1E-04	6E-06	1E+00	5E-02	6E-05	5E-02
Chrysene	0.088	No TBV	No TBV	No TBV	No TBV	8E-05	1E-05	1E-08	2E-03
Cobalt	39.7	2E-03	3E-04	7E-07	3E-08	3E-02	5E-03	5E-06	5E-01
Chromium	192.61	2E+01	3E+00	7E-03	3E-04	9E-02	1E-02	1E-05	1E+00
Fluoranthene	0.145079	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	2E-08	3E-03
Nickel	369.152	6E-01	9E-02	2E-04	8E-06	2E-02	3E-03	4E-05	7E-01
Lead	1429.601	3E+01	5E+00	4E-03	2E-04	4E-01	8E-02	2E-05	1E+00
Phenanthrene	0.189986	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	3E-08	4E-03
Pyrene	0.064151	No TBV	No TBV	No TBV	No TBV	6E-05	9E-06	9E-09	1E-03
Total petroleum hydrocarbons	630.081	8E-02	1E-02	2E-05	1E-06	1E-03	2E-04	2E-07	No TBV
TPH, diesel fraction	90	1E-02	2E-03	3E-06	1E-07	2E-04	3E-05	3E-08	No TBV
Zinc	400.8715	2E+00	3E-01	9E-05	4E-06	3E-01	4E-02	8E-06	5E-01
Sum		**6E+01**	**8E+00**	**1E-02**	**5E-04**	**2E+00**	**2E-01**	**2E-04**	**5E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-58 Hazard Indices for for Exposures to Shallow Soils (< 3ft) at Building 642, Consolidated Motor Pool Area, Crissy Field Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Total petroleum hydrocarbons	99	1E-01	3E-02	3E-05	6E-07	2E-03	3E-04	5E-08	No TBV
Sum		**1E-01**	**3E-02**	**3E-05**	**6E-07**	**2E-03**	**3E-04**	**5E-08**	

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Total petroleum hydrocarbons	99	2E-03	7E-04	3E-07	1E-08	7E-05	1E-05	2E-09	No TBV
Sum		**2E-03**	**7E-04**	**3E-07**	**1E-08**	**7E-05**	**1E-05**	**2E-09**	

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-59 Hazard Indices for Exposure to Shallow Soils (< 3 ft) in the Fill Site 7 / East of Mason Shoreline Area(page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1,1,2,2 - Tetrachloroethane	0.002	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Acenapththene	0.154	No TBV	No TBV	No TBV	No TBV	4E-03	9E-04	3E-05	1E-02
Acenapthylene	0.12	No TBV	No TBV	No TBV	No TBV	3E-03	7E-04	2E-05	No TBV
Aldrin	0.002	3E-03	4E-04	4E-05	9E-07	2E-04	5E-05	5E-06	4E-05
a-Endosulfan	0.002	2E-03	3E-04	3E-05	7E-07	No TBV	No TBV	No TBV	2E-06
Anthracene	0.299	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	5E-05	No TBV
Antimony	25.61789	No TBV	No TBV	No TBV	No TBV	4E-01	8E-02	2E-03	5E+00
Bis(2-chloroethoxy) methane	0.063252	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl) phthalate	0.054	1E-03	2E-04	2E-05	4E-07	3E-05	6E-06	2E-07	5E-04
Benzo[a]anthracene	0.321275	No TBV	No TBV	No TBV	No TBV	9E-03	2E-03	5E-05	1E-02
Benzo[a]pyrene	0.298106	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	5E-05	1E-02
Barium	242.6281	2E+00	3E-01	2E-02	6E-04	2E-01	4E-02	1E-03	5E-01
Benzo[b]fluoranthene	0.300647	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	5E-05	1E-02
Beryllium	0.770879	1E-02	2E-03	2E-04	4E-06	1E-03	2E-04	6E-06	8E-02
Benzo[k]fluoranthene	0.108252	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	2E-05	No TBV
Chrysene	0.332187	No TBV	No TBV	No TBV	No TBV	9E-03	2E-03	6E-05	1E-02
Copper	43.86	6E+00	5E-01	8E-03	8E-04	5E-01	6E-02	4E-03	9E-01
d-Benzene hexachloride	0.003	1E-03	1E-04	1E-05	3E-07	No TBV	No TBV	No TBV	No TBV
Di-n-butyl phthalate	0.657	5E-01	4E-02	6E-03	1E-04	3E-04	8E-05	2E-06	7E-03
Dieldrin	0.002	1E-01	5E-04	1E-03	2E-06	2E-02	1E-04	1E-04	4E-05
Endrin	0.007	2E-01	2E-02	2E-03	5E-05	3E-05	6E-06	1E-07	No TBV
Endrin aldehyde	0.026	6E-01	9E-02	8E-03	2E-04	1E-04	2E-05	5E-07	No TBV
Fluoranthene	0.300847	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	5E-05	1E-02
Fluorene	0.15	No TBV	No TBV	No TBV	No TBV	4E-03	9E-04	2E-05	5E-03
Indeno[1,2,3-C,D]pyrene	0.076	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	1E-05	3E-03
Methoxychlor	0.024	5E-04	6E-05	6E-06	1E-07	No TBV	No TBV	No TBV	No TBV
Manganese	2490	5E+00	6E-01	6E-02	1E-03	3E-01	7E-02	2E-03	5E+00
Mercury	0.250431	1E+01	1E-01	2E-01	9E-03	3E-01	2E-03	5E-04	8E-01
Phenanthrene	0.291274	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	5E-05	1E-02
PPDDE	0.054113	1E+00	1E-02	3E-02	3E-04	7E-03	5E-05	1E-05	1E-03
PPDDT	0.029031	1E+01	7E-02	1E-01	2E-03	4E-03	3E-05	7E-06	7E-04
Pyrene	0.427015	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	7E-05	1E-02
TPH-diesel	33.66	2E-01	3E-02	3E-03	6E-05	2E-03	2E-04	4E-06	No TBV
Trichlorofluoromethane	0.003	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sum		**4E+01**	**2E+00**	**5E-01**	**2E-02**	**2E+00**	**3E-01**	**1E-02**	**1E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-59 Hazard Indices for Exposure to Shallow Soils (< 3 ft) in the Fill Site 7 / East of Mason Shoreline Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1122TCA	0.002	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Acenapththene	0.154	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-07	6E-03
Acenapthylene	0.12	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-07	No TBV
Aldrin	0.002	6E-04	8E-05	4E-06	2E-07	6E-05	9E-06	1E-06	2E-05
a-Endosulfan	0.002	1E-05	1E-06	6E-08	3E-09	No TBV	No TBV	No TBV	2E-06
Anthracene	0.299	No TBV	No TBV	No TBV	No TBV	3E-04	4E-05	1E-06	No TBV
Antimony	25.61789	No TBV	No TBV	No TBV	No TBV	1E-01	2E-02	5E-04	5E+00
Bis(2-chloroethoxy) methane	0.063252	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl) phthalate	0.054	5E-05	7E-06	3E-07	2E-08	9E-07	2E-07	4E-09	5E-05
Benzo[a]anthracene	0.321275	No TBV	No TBV	No TBV	No TBV	3E-04	5E-05	1E-06	6E-03
Benzo[a]pyrene	0.298106	No TBV	No TBV	No TBV	No TBV	3E-04	4E-05	1E-06	6E-03
Barium	242.6281	2E-01	3E-02	1E-03	6E-05	6E-02	1E-02	2E-04	5E-01
Benzo[b]fluoranthene	0.300647	No TBV	No TBV	No TBV	No TBV	3E-04	4E-05	1E-06	6E-03
Beryllium	0.770879	2E-04	3E-05	2E-06	7E-08	2E-04	3E-05	6E-07	8E-02
Benzo[k]fluoranthene	0.108252	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-07	No TBV
Chrysene	0.332187	No TBV	No TBV	No TBV	No TBV	3E-04	5E-05	1E-06	7E-03
Copper	43.86	9E-01	8E-02	6E-04	1E-04	3E-01	4E-02	6E-04	1E-01
d-Benzene hexachloride	0.003	4E-06	5E-07	3E-08	1E-09	No TBV	No TBV	No TBV	No TBV
Di-n-butyl phthalate	0.657	9E-02	1E-02	6E-04	3E-05	No TBV	No TBV	No TBV	7E-04
Dieldrin	0.002	3E-02	1E-04	1E-04	4E-07	5E-03	2E-05	3E-05	2E-05
Endrin	0.007	6E-03	8E-04	4E-05	2E-06	3E-07	6E-08	1E-09	No TBV
Endrin aldehyde	0.026	2E-02	3E-03	1E-04	6E-06	1E-06	2E-07	5E-09	No TBV
Fluoranthene	0.300847	No TBV	No TBV	No TBV	No TBV	3E-04	4E-05	1E-06	6E-03
Fluorene	0.15	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-07	3E-03
Indeno[1,2,3-C,D]pyrene	0.076	No TBV	No TBV	No TBV	No TBV	7E-05	1E-05	3E-07	2E-03
Methoxychlor	0.024	2E-06	3E-07	1E-08	5E-10	No TBV	No TBV	No TBV	No TBV
Manganese	2490	9E-01	1E-01	6E-03	3E-04	4E-02	6E-03	1E-04	5E+00
Mercury	0.250431	4E-02	4E-04	6E-04	3E-05	2E-02	1E-04	2E-05	3E-02
Phenanthrene	0.291274	No TBV	No TBV	No TBV	No TBV	3E-04	4E-05	1E-06	6E-03
PPDDE	0.054113	5E-02	4E-04	6E-04	1E-05	5E-04	3E-06	5E-07	3E-04
PPDDT	0.029031	3E-02	2E-04	3E-03	7E-06	3E-04	1E-06	3E-07	1E-04
Pyrene	0.427015	No TBV	No TBV	No TBV	No TBV	4E-04	6E-05	1E-06	9E-03
TPH-diesel	33.66277	4E-03	6E-04	3E-05	1E-06	6E-05	1E-05	2E-07	No TBV
Trichlorofluoromethane	0.003	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sum		**2E+00**	**3E-01**	**1E-02**	**5E-04**	**6E-01**	**8E-02**	**2E-03**	**1E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-60. Hazard Indices for Wetland Receptors Exposed to Soils (< 15 ft) in the Crissy Field Future Wetland Area (page 1 of 2)

HI HIGH

Analyte	Water EPC[a] (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony		55.400	No TBV	No TBV	No TBV	No TBV	No TBV	3E-01
Barium		182.900	No TBV	No TBV	No TBV	2E-02	3E-01	4E-02
Beryllium		0.650	No TBV	No TBV	No TBV	1E-04	2E-03	2E-04
Copper		39.040	No TBV	2E+00	No TBV	6E-03	1E-01	3E-02
Manganese		2490.000	No TBV	5E+00	No TBV	5E-02	1E+00	1E-01
Mercury		0.232	No TBV	2E+00	No TBV	1E-02	2E-01	2E-03
Acetone		0.033	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Dibenzofuran		0.030	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methylene chloride		0.025	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methyl ethyl ketone		0.025	No TBV	No TBV	No TBV	No TBV	No TBV	4E-06
1,1,2,2-Tetrachloroethane		0.001	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichlorofluoromethane		0.002	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
BenZALC		0.103	No TBV	No TBV	No TBV	5E-04	9E-03	4E-05
Bis(2-chloroethoxy) methane		0.050	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Di-*n*-butyl pthalate		0.857	No TBV	8E-02	No TBV	7E-03	1E-01	1E-04
TPH-Diesel	0.22044	24.249	3E-02	No TBV	3E-02	4E-04	3E-02	2E-04
Acenaphthylene	0.00027	0.029	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Anthracene	0.00030	0.033	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[*a*]anthracene	0.00033	0.064	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[*a*]pyrene	0.00008	0.048	6E-03	2E-01	6E-03	No TBV	No TBV	No TBV
Benzo[*b*]fluoranthene	0.00042	0.046	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[*k*]fluoranthene	0.00037	0.041	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	0.00218	0.141	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Fluoranthene	0.00067	0.073	2E-04	7E-01	2E-04	No TBV	No TBV	No TBV
Fluorene / 9*H*-Fluorene	0.00024	0.026	6E-05	5E-01	6E-05	No TBV	No TBV	No TBV
Indeno[1,2,3-C,D]pyrene	0.00026	0.029	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Naphthalene / Tar camphor	0.00024	0.026	1E-05	6E-01	1E-05	No TBV	No TBV	No TBV
Phenanthrene	0.00092	0.101	1E-04	4E-01	1E-04	No TBV	No TBV	No TBV
Pyrene	0.00096	0.106	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Aldrin	0.00275	0.002	9E-06	6E-04	9E-06	3E-03	5E-03	5E-03
DBHC		0.002	No TBV	No TBV	No TBV	9E-06	2E-04	No TBV
PPDDE	0.00242	0.039	2E-01	8E+00	2E-01	1E-03	2E-02	1E-04
PPDDT	0.00084	0.028	6E-02	4E+00	6E-02	8E-03	2E-01	5E-05
Dieldrin	0.00011	0.012	2E-03	6E+00	2E-03	3E-04	4E-03	2E-03
Endosulfan I / alpha-Endosulfan		0.002	No TBV	7E-01	No TBV	6E-06	6E-04	No TBV
Sum			**3E-01**	**3E+01**	**3E-01**	**1E-01**	**2E+00**	**4E-01**

[a] concentration modeled with equilibrium partitioning

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-60. Hazard Indices for Wetland Receptors Exposed to Soils (< 15 ft) in the Crissy Field Future Wetland Area (page 2 of 2)

HI Low

Analyte	Water EPC[a] (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony		55.400	No TBV	No TBV	No TBV	No TBV	No TBV	5E-02
Barium		182.900	No TBV	No TBV	No TBV	2E-03	3E-02	8E-03
Beryllium		0.650	No TBV	No TBV	No TBV	2E-06	5E-05	2E-05
Copper		39.040	No TBV	4E-01	No TBV	9E-04	2E-02	5E-03
Manganese		2490.000	No TBV	2E+00	No TBV	1E-02	2E-01	7E-03
Mercury		0.232	No TBV	1E-01	No TBV	3E-05	6E-04	1E-04
Acetone		0.033	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Dibenzofuran		0.030	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methylene chloride		0.025	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methyl ethyl ketone		0.025	No TBV	No TBV	No TBV	No TBV	No TBV	8E-07
1,1,2,2-Tetrachloroethane		0.001	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichlorofluoromethane		0.002	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
BenZALC		0.103	No TBV	No TBV	No TBV	2E-06	4E-05	2E-07
Bis(2-chloroethoxy) methane		0.050	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Di-*n*-butyl pthalate		0.857	No TBV	8E-02	No TBV	1E-03	3E-02	No TBV
TPH-Diesel	0.22044	24.249	1E-03	No TBV	1E-03	4E-05	7E-04	8E-06
Acenaphthylene	0.00027	0.029	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Anthracene	0.00030	0.033	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[*a*]anthracene	0.00033	0.064	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[*a*]pyrene	0.00008	0.048	6E-03	9E-03	6E-03	No TBV	No TBV	No TBV
Benzo[*b*]fluoranthene	0.00042	0.046	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[*k*]fluoranthene	0.00037	0.041	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	0.00218	0.141	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Fluoranthene	0.00067	0.073	1E-04	7E-03	1E-04	No TBV	No TBV	No TBV
Fluorene / 9*H*-Fluorene	0.00024	0.026	6E-05	2E-02	6E-05	No TBV	No TBV	No TBV
Indeno[1,2,3-C,D]pyrene	0.00026	0.029	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Naphthalene / Tar camphor	0.00024	0.026	1E-05	5E-02	1E-05	No TBV	No TBV	No TBV
Phenanthrene	0.00092	0.101	1E-04	9E-02	1E-04	No TBV	No TBV	No TBV
Pyrene	0.00096	0.106	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Aldrin	0.00275	0.002	9E-06	6E-04	9E-06	5E-04	1E-03	1E-03
DBHC		0.002	No TBV	No TBV	No TBV	4E-08	7E-07	No TBV
PPDDE	0.00242	0.039	2E-01	4E-01	2E-01	5E-05	8E-04	4E-06
PPDDT	0.00084	0.028	6E-02	1E-01	6E-02	3E-05	5E-04	2E-06
Dieldrin	0.00011	0.012	1E-03	1E-02	1E-03	6E-05	9E-04	4E-04
Endosulfan I / alpha-Endosulfan		0.002	No TBV	7E-01	No TBV	1E-07	2E-06	No TBV
Sum			**3E-01**	**4E+00**	**3E-01**	**2E-02**	**3E-01**	**7E-02**

[a] concentration modeled with equilibrium partitioning

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-61 Hazard Indices for Terrestial Receptors Exposed to Soils (< 15 ft) in the Crissy Field Future Wetland Area (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Antimony	55.400	No TBV	No TBV	No TBV	No TBV	8E-01	2E-01	4E-03	1E+01
Barium	182.900	1E+00	2E-01	1E-02	3E-04	1E-01	3E-02	7E-04	4E-01
Beryllium	0.650	1E-02	1E-03	1E-04	2E-06	8E-04	2E-04	4E-06	7E-02
Copper	39.040	5E+00	5E-01	6E-03	6E-04	4E-01	5E-02	3E-03	8E-01
Manganese	2490	5E+00	6E-01	5E-02	1E-03	3E-01	7E-02	2E-03	5E+00
Mercury	0.231597	1E+01	1E-01	1E-01	7E-03	2E-01	2E-03	3E-04	8E-01
Acetone	0.033423	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Dibenzofuran	0.030198	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methylene chloride	0.0254	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methyl ethyl ketone	0.025	No TBV	No TBV	No TBV	No TBV	1E-05	3E-06	6E-08	No TBV
1,1,2,2-Tetrachloroethane	0.001187	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichlorofluoromethane	0.001637	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
BenZALC	0.102557	4E-02	5E-03	4E-04	9E-06	2E-04	4E-05	6E-07	No TBV
Bis(2-chloroethoxy) methane	0.050253	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Di-*n*-butyl pthalate	0.857464	6E-01	5E-02	6E-03	1E-04	4E-04	1E-04	2E-06	9E-03
TPH-Diesel	24.24883	1E-01	2E-02	1E-03	3E-05	1E-03	2E-04	2E-06	No TBV
Acenaphthylene	0.029404	No TBV	No TBV	No TBV	No TBV	8E-04	2E-04	4E-06	No TBV
Anthracene	0.032916	No TBV	No TBV	No TBV	No TBV	9E-04	2E-04	4E-06	No TBV
Benzo[*a*]anthracene	0.063925	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	8E-06	2E-03
Benzo[*a*]pyrene	0.047813	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	6E-06	2E-03
Benzo[*b*]fluoranthene	0.045702	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	6E-06	2E-03
Benzo[*k*]fluoranthene	0.041155	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	5E-06	No TBV
Chrysene	0.141222	No TBV	No TBV	No TBV	No TBV	4E-03	8E-04	2E-05	5E-03
Fluoranthene	0.07333	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	9E-06	2E-03
Fluorene / 9*H*-Fluorene	0.026378	No TBV	No TBV	No TBV	No TBV	7E-04	2E-04	3E-06	9E-04
Indeno[1,2,3-C,D]pyrene	0.028695	No TBV	No TBV	No TBV	No TBV	8E-04	2E-04	4E-06	1E-03
Naphthalene / Tar camphor	0.026169	No TBV	No TBV	No TBV	No TBV	7E-04	2E-04	3E-06	9E-04
Phenanthrene	0.100862	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	1E-05	3E-03
Pyrene	0.105577	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	1E-05	4E-03
Aldrin	0.002	3E-03	4E-04	3E-05	7E-07	2E-04	5E-05	4E-06	4E-05
DBHC	0.002398	8E-04	1E-04	8E-06	2E-07	No TBV	No TBV	No TBV	No TBV
PPDDE	0.039364	1E+00	7E-03	2E-02	2E-04	5E-03	4E-05	7E-06	1E-03
PPDDT	0.027961	9E+00	7E-02	8E-02	2E-03	4E-03	3E-05	5E-06	7E-04
Dieldrin	0.012	8E-01	3E-03	7E-03	9E-06	1E-01	6E-04	6E-04	2E-04
Endosulfan I / alpha-Endosulfan	0.002145	3E-03	4E-04	3E-05	6E-07	No TBV	No TBV	No TBV	2E-06
Sum		**4E+01**	**2E+00**	**3E-01**	**1E-02**	**2E+00**	**3E-01**	**1E-02**	**2E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-61 Hazard Indices for Terrestial Receptors Exposed to Soils (< 15 ft) in the Crissy Field Future Wetland Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Antimony	55.400	No TBV	No TBV	No TBV	No TBV	3E-01	5E-02	8E-04	1E+01
Barium	182.900	1E-01	2E-02	7E-04	3E-05	5E-02	8E-03	1E-04	4E-01
Beryllium	0.650	2E-04	3E-05	1E-06	5E-08	1E-04	2E-05	4E-07	7E-02
Copper	39.040	8E-01	7E-02	4E-04	9E-05	**3E-01**	**3E-02**	4E-04	1E-01
Manganese	2490	9E-01	1E-01	5E-03	2E-04	4E-02	6E-03	1E-04	5E+00
Mercury	0.231597	4E-02	4E-04	5E-04	2E-05	2E-02	9E-05	1E-05	2E-02
Acetone	0.033423	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Dibenzofuran	0.030198	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methylene chloride / Dichlorometha	0.0254	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methyl ethyl ketone / 2-Butanone	0.025	No TBV	No TBV	No TBV	No TBV	4E-06	7E-07	1E-08	No TBV
Tetrachloroethane / 1,1,2,2-Tetrachl	0.001187	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichlorofluoromethane	0.001637	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
BenZALC	0.102557	2E-04	2E-05	8E-07	4E-08	9E-07	1E-07	3E-09	No TBV
Bis(2-chloroethoxy) methane	0.050253	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Di-*n*-butyl pthalate	0.857464	1E-01	2E-02	6E-04	3E-05	No TBV	No TBV	No TBV	9E-04
TPH-Diesel	24.24883	3E-03	4E-04	1E-05	7E-07	4E-05	7E-06	1E-07	No TBV
Acenaphthylene	0.029404	No TBV	No TBV	No TBV	No TBV	3E-05	4E-06	8E-08	No TBV
Anthracene	0.032916	No TBV	No TBV	No TBV	No TBV	3E-05	5E-06	8E-08	No TBV
Benzo[*a*]anthracene	0.063925	No TBV	No TBV	No TBV	No TBV	6E-05	9E-06	2E-07	1E-03
Benzo[*a*]pyrene	0.047813	No TBV	No TBV	No TBV	No TBV	4E-05	7E-06	1E-07	1E-03
Benzo[*b*]fluoranthene / 3,4-Benzofl	0.045702	No TBV	No TBV	No TBV	No TBV	4E-05	7E-06	1E-07	9E-04
Benzo[*k*]fluoranthene	0.041155	No TBV	No TBV	No TBV	No TBV	4E-05	6E-06	1E-07	No TBV
Chrysene	0.141222	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-07	3E-03
Fluoranthene	0.07333	No TBV	No TBV	No TBV	No TBV	7E-05	1E-05	2E-07	1E-03
Fluorene / 9*H*-Fluorene	0.026378	No TBV	No TBV	No TBV	No TBV	2E-05	4E-06	7E-08	5E-04
Indeno[1,2,3-C,D]pyrene	0.028695	No TBV	No TBV	No TBV	No TBV	3E-05	4E-06	7E-08	6E-04
Naphthalene / Tar camphor	0.026169	No TBV	No TBV	No TBV	No TBV	2E-05	4E-06	7E-08	5E-04
Phenanthrene	0.100862	No TBV	No TBV	No TBV	No TBV	9E-05	1E-05	3E-07	2E-03
Pyrene	0.105577	No TBV	No TBV	No TBV	No TBV	9E-05	2E-05	3E-07	2E-03
Aldrin	0.002	6E-04	8E-05	3E-06	1E-07	6E-05	9E-06	1E-06	2E-05
DBHC	0.002398	3E-06	4E-07	2E-08	7E-10	No TBV	No TBV	No TBV	No TBV
PPDDE	0.039364	4E-02	3E-04	3E-04	8E-06	3E-04	2E-06	3E-07	2E-04
PPDDT	0.027961	3E-02	2E-04	2E-03	5E-06	2E-04	1E-06	2E-07	1E-04
Dieldrin	0.012	2E-01	6E-04	7E-04	2E-06	3E-02	1E-04	1E-04	1E-04
Endosulfan I / alpha-Endosulfan	0.002145	1E-05	1E-06	5E-08	2E-09	No TBV	No TBV	No TBV	2E-06
Sum		**2E+00**	**2E-01**	**1E-02**	**4E-04**	**7E-01**	**9E-02**	**2E-03**	**2E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-62a. Hazard Indices for Water Exposure at the Crissy Field Future Wetland Area: Zero Dilution Scenario (page 1 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony	2.21	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Barium	486.5897	1E+02	1E+02	1E+02	1E-03	4E-03	No TBV
Beryllium	3.16	6E-01	6E-01	6E-01	No TBV	No TBV	No TBV
Copper	564	2E+02	2E+02	2E+02	3E+00	4E+00	2E+00
Manganese	1710	2E+01	2E+01	2E+01	No TBV	No TBV	No TBV
Mercury	0.8	7E-01	7E-01	7E-01	5E-01	2E-01	1E-02
2,4-D	4.9	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	29.8	9E-01	9E-01	9E-01	No TBV	No TBV	No TBV
1,2-Dichloroethylenes	0.38	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chloroethene	0.47	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichloroethene	0.47	1E-03	1E-03	1E-03	No TBV	No TBV	No TBV
Chloroform	2.51	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Fluoride	5300	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrite, Nitrate-Non Specific	3000	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrate	1690	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sulfate	28387.852	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Total Dissolved Solids	2326923	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sum		**4E+02**	**4E+02**	**4E+02**	**3E+00**	**4E+00**	**2E+00**

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-62a. Hazard Indices for Water Exposure at the Crissy Field Future Wetland Area: Zero Dilution Scenario (page 2 of 2)

HI Low

Analyte	Water EPC (ug/L)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony	2.21	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Barium	486.5897	1E+02	1E+02	1E+02	1E-04	4E-04	No TBV
Beryllium	3.16	6E-01	6E-01	6E-01	No TBV	No TBV	No TBV
Copper	564	5E+01	5E+01	5E+01	4E-01	6E-01	3E-01
Manganese	1710	2E+01	2E+01	2E+01	No TBV	No TBV	No TBV
Mercury	0.8	6E-01	6E-01	6E-01	2E-03	8E-04	5E-04
2,4-D	4.9	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	29.8	9E-01	9E-01	9E-01	No TBV	No TBV	No TBV
1,2-Dichloroethylenes	0.38	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chloroethene	0.47	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichloroethene	0.47	1E-03	1E-03	1E-03	No TBV	No TBV	No TBV
Chloroform	2.51	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Fluoride	5300	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrite, Nitrate-Non Specific	3000	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrate	1690	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sulfate	28387.852	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Total Dissolved Solids	2326923	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sum		**2E+02**	**2E+02**	**2E+02**	**4E-01**	**6E-01**	**3E-01**

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-62b. Hazard Indices for Water Exposure at the Crissy Field Future Wetland Area: 50% Dilution Scenario (page 1 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony	1.11	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Barium	243.29	6E+01	6E+01	6E+01	7E-04	2E-03	No TBV
Beryllium	1.94	4E-01	4E-01	4E-01	No TBV	No TBV	No TBV
Copper	282.00	1E+02	1E+02	1E+02	1E+00	2E+00	9E-01
Manganese	1361.91	2E+01	2E+01	2E+01	No TBV	No TBV	No TBV
Mercury	0.40	4E-01	4E-01	4E-01	3E-01	1E-01	6E-03
2,4-D	2.45	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	28.10	9E-01	9E-01	9E-01	No TBV	No TBV	No TBV
1,2-Dichloroethylenes (cis and trans)	2.95	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chloroethene	0.23	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichloroethene	0.15	4E-04	4E-04	4E-04	No TBV	No TBV	No TBV
Chloroform	1.26	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Fluoride	2650.00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrate	1500.00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrate	845.00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sulfate	14193.93	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
TDS	1163461.50	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sum		**2E+02**	**2E+02**	**2E+02**	**2E+00**	**2E+00**	**9E-01**

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-62b. Hazard Indices for Water Exposure at the Crissy Field Future Wetland Area: 50% Dilution Scenario (page 2 of 2)

HI Low

Analyte	Water EPC (ug/L)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony	1.11	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Barium	243.29	6E+01	6E+01	6E+01	7E-05	2E-04	No TBV
Beryllium	1.94	4E-01	4E-01	4E-01	No TBV	No TBV	No TBV
Copper	282.00	3E+01	3E+01	3E+01	2E-01	3E-01	1E-01
Manganese	1361.91	2E+01	2E+01	2E+01	No TBV	No TBV	No TBV
Mercury	0.40	3E-01	3E-01	3E-01	8E-04	4E-04	2E-04
24D	2.45	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	28.10	9E-01	9E-01	9E-01	No TBV	No TBV	No TBV
cis-1,2-Dichloroethylene	2.95	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chloroethene	0.23	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
TCE	0.15	4E-04	4E-04	4E-04	No TBV	No TBV	No TBV
Chloroform	1.26	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Fluoride	2650.00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrate	1500.00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Nitrate	845.00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sulfate	14193.93	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
TDS	1163461.50	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Sum		**1E+02**	**1E+02**	**1E+02**	**2E-01**	**3E-01**	**1E-01**

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-62c. Hazard Indices for Water Exposure at the Crissy Field Future Wetland Area: 90% Dilution Scenario, (page 1 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony	0.221	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Barium	48.65897	1E+01	1E+01	1E+01	1E-04	4E-04	0E+00
Beryllium	0.3880721	8E-02	8E-02	8E-02	No TBV	No TBV	No TBV
Copper	56.4	2E+01	2E+01	2E+01	3E-01	4E-01	2E-01
Manganese	272.3812	3E+00	3E+00	3E+00	No TBV	No TBV	No TBV
Mercury	0.08	7E-02	7E-02	7E-02	5E-02	2E-02	1E-03
24D	0.49	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	5.62	2E-01	2E-01	2E-01	No TBV	No TBV	No TBV
1,2-Dichloroethylenes	0.59	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chloroethene	0.046745	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichloroethene	0.0306141	9E-05	9E-05	9E-05	No TBV	No TBV	No TBV
Chloroform	2.51	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Fluoride	5300	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Nitrite, Nitrate-Non Specific	3000	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Nitrate	1690	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Sulfate	28387.852	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Total Dissolved Solids	2326923	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Sum		**4E+01**	**4E+01**	**4E+01**	**3E-01**	**4E-01**	**2E-01**

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-62c. Hazard Indices for Water Exposure at the Crissy Field Future Wetland Area: 90% Dilution Scenario, (page 2 of 2)

HI Low

Analyte	Water EPC (ug/L)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Fish[1]	Mallard Duck[2]	Sandpiper[2]	Raccoon[2]
Antimony	0.221	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Barium	48.65897	1E+01	1E+01	1E+01	1E-05	4E-05	0E+00
Beryllium	0.3880721	8E-02	8E-02	8E-02	No TBV	No TBV	No TBV
Copper	56.4	5E+00	5E+00	5E+00	4E-02	6E-02	3E-02
Manganese	272.3812	3E+00	3E+00	3E+00	No TBV	No TBV	No TBV
Mercury	0.08	6E-02	6E-02	6E-02	2E-04	8E-05	5E-05
24D	0.49	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	5.62	2E-01	2E-01	2E-01	No TBV	No TBV	No TBV
cis-1,2-Dichloroethylene	0.59	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chloroethene	0.046745	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Trichloroethene	0.0306141	9E-05	9E-05	9E-05	No TBV	No TBV	No TBV
Chloroform	2.51	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Fluoride	5300	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Nitrite, Nitrate-Non Specific	3000	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Nitrate	1690	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Sulfate	28387.852	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Total Dissolved Solids	2326923	No TBV	No TBV	No TBV	0E+00	0E+00	0E+00
Sum		**2E+01**	**2E+01**	**2E+01**	**4E-02**	**6E-02**	**3E-02**

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-63 Hazard Indices for Exposure to Shallow Soils (< 3ft) for Building 609, Crissy Field Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Dieldrin	0.012	2E-01	1E-03	3E-05	4E-08	4E-02	3E-04	3E-06	2E-04
ppDDE	0.008	4E-02	6E-04	1E-05	2E-07	4E-04	3E-06	6E-09	2E-04
ppDDT	0.131	9E+00	1E-01	2E-03	4E-05	7E-03	5E-05	1E-07	3E-03
Sum		**9E+00**	**1E-01**	**2E-03**	**4E-05**	**5E-02**	**3E-04**	**3E-06**	**4E-03**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Dieldrin	0.012	3E-02	3E-04	3E-06	8E-09	1E-02	5E-05	6E-07	1E-04
ppDDE	0.008	2E-03	3E-05	3E-07	7E-09	3E-05	2E-07	2E-10	4E-05
ppDDT	0.131	3E-02	4E-04	4E-05	1E-07	4E-04	3E-06	4E-09	7E-04
Sum		**6E-02**	**7E-04**	**4E-05**	**1E-07**	**1E-02**	**6E-05**	**6E-07**	**8E-04**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-64 Hazard Indices for Shallow Soils (< 3ft) at Building 633, Crissy Field Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	659.000	7E+02	2E+02	4E-02	2E-03	7E+00	2E+00	1E-04	1E+00
Sum		**7E+02**	**2E+02**	**4E-02**	**2E-03**	**7E+00**	**2E+00**	**1E-04**	**1E+00**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	659.000	6E+00	2E+00	4E-04	2E-05	2E-01	4E-02	2E-06	7E-01
Sum		**6E+00**	**2E+00**	**4E-04**	**2E-05**	**2E-01**	**4E-02**	**2E-06**	**7E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-65 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Crissy Field Sewer Lift Station 1

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Facon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	603	1E+02	4E+01	8E-03	3E-04	1E+00	4E-01	2E-05	1E+00
Mercury	0.168	1E+00	2E-02	2E-04	1E-05	3E-02	3E-04	5E-07	6E-01
Zinc	139	2E+00	5E-01	6E-05	1E-06	1E-01	2E-02	1E-06	3E+00
Sum		**1E+02**	**4E+01**	**8E-03**	**4E-04**	**1E+00**	**4E-01**	**2E-05**	**5E+00**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	603	1E+00	4E-01	7E-05	3E-06	3E-02	7E-03	3E-07	6E-01
Mercury	0.168	3E-03	6E-05	7E-07	3E-08	2E-03	1E-05	2E-08	2E-02
Zinc	139	8E-02	2E-02	1E-06	6E-08	2E-02	3E-03	1E-07	2E-01
Sum		**1E+00**	**4E-01**	**7E-05**	**3E-06**	**5E-02**	**1E-02**	**4E-07**	**8E-01**

NOTE: HQs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-66 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Crissy Field Sewer Lift Station 2

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Copper	165	6E+00	1E+00	1E-04	1E-05	9E-01	1E-01	7E-05	3E+00
Cyanide	0.0013	0E+00	0E+00	0E+00	0E+00	3E-04	7E-05	2E-08	NA
Mercury	0.13	2E+00	4E-02	5E-04	2E-05	7E-02	6E-04	1E-06	4E-01
Selenium	3.68	9E+01	3E+01	1E-03	3E-05	2E+02	4E+01	1E-03	4E+00
Sum		**1E+02**	**3E+01**	**2E-03**	**6E-05**	**2E+02**	**4E+01**	**1E-03**	**7E+00**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Copper	165	9E-01	2E-01	1E-05	2E-06	2E+00	3E-01	1E-05	4E-01
Cyanide	0.0013	0E+00	0E+00	0E+00	0E+00	2E-06	4E-07	6E-11	NA
Mercury	0.13	6E-03	1E-04	1E-06	7E-08	5E-03	3E-05	4E-08	1E-02
Selenium	3.68	2E+01	6E+00	1E-04	6E-06	1E+01	2E+00	4E-05	5E-02
Sum		**2E+01**	**6E+00**	**1E-04**	**8E-06**	**1E+01**	**2E+00**	**5E-05**	**5E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-67 Hazard Indices for Exposure to Shallow Soils (< 3ft) at the Building 900s Series Study Area (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna	Mallard Duck	Sandpiper
m-Xylene	0.595	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
1,4-Dichlorobenzene	0.83	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
2-Methylnaphthalene	0.14	No TBV	No TBV	No TBV	No TBV	4E-03	8E-04	3E-06	No TBV	No TBV	No TBV
Anthracene	0.068	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	1E-06	No TBV	No TBV	No TBV
Arsenic	4.11	2E-01	3E-02	3E-04	7E-06	3E-02	6E-03	2E-05	4E-01	2E-06	5E-02
Bis(2-ethylhexyl)phthalate	9.32	2E-01	3E-02	3E-04	8E-06	5E-03	1E-03	3E-06	9E-02	9E-06	5E-02
Barium	297	2E+00	3E-01	3E-03	8E-05	2E-01	5E-02	2E-04	6E-01	9E-05	5E-01
Benzo[*a*]anthracene	0.11	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	2E-06	4E-03	No TBV	No TBV
Trichlorofluoromethane	1.143504	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Cadmium	4.83	3E+02	6E+00	2E-02	4E-04	6E+01	2E+00	6E-03	2E+00	7E-05	2E+00
Methylene chloride	10	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	0.139	No TBV	No TBV	No TBV	No TBV	4E-03	8E-04	3E-06	5E-03	No TBV	No TBV
Copper	160	2E+01	2E+00	3E-03	3E-04	2E+00	2E-01	2E-03	3E+00	9E-05	5E-01
Cyanide	0.46	No TBV	No TBV	No TBV	No TBV	2E-01	4E-02	1E-04	No TBV	No TBV	No TBV
Dieldrin	0.003	2E-01	8E-04	3E-04	3E-07	3E-02	1E-04	2E-05	6E-05	2E-07	1E-03
Di-*n*-butyl phthalate	3	2E+00	2E-01	3E-03	7E-05	2E-03	3E-04	1E-06	3E-02	8E-05	5E-01
Fluoranthene	0.17	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	3E-06	6E-03	No TBV	No TBV
Mercury	0.32	2E+01	2E-01	3E-02	1E-03	3E-01	3E-03	7E-05	1E+00	5E-05	3E-01
Methyl isobutyl ketone	4.43	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	2E-06	No TBV	No TBV	No TBV
Napthalene	0.23	No TBV	No TBV	No TBV	No TBV	6E-03	1E-03	4E-06	8E-03	No TBV	No TBV
Lead	1860	4E+03	7E+02	2E+00	7E-02	2E+01	6E+00	4E-03	4E+00	9E-02	5E+02
PCB 1254	3.53	4E+02	2E+00	2E-01	3E-02	1E+01	8E-02	3E-03	9E-02	6E-04	3E+00
PCB 1260	0.355	4E+01	2E-01	2E-02	3E-03	1E+00	8E-03	3E-04	9E-03	6E-05	3E-01
Phenanthrene	0.19	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	4E-06	6E-03	No TBV	No TBV
PPDDD	0.004	2E-01	2E-03	4E-04	3E-06	5E-04	4E-06	1E-07	1E-04	4E-07	2E-03
PPDDE	0.01	3E-01	2E-03	6E-04	7E-06	1E-03	9E-06	3E-07	3E-04	5E-07	3E-03
PPDDT	0.007	2E+00	2E-02	3E-03	7E-05	9E-04	7E-06	2E-07	2E-04	5E-06	3E-02
Pyrene	0.42	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	8E-06	1E-02	No TBV	No TBV
Antimony	5.3	No TBV	No TBV	No TBV	No TBV	8E-02	2E-02	6E-05	1E+00	No TBV	No TBV
Tetrachloroethylene	0.43	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	2E-06	No TBV	No TBV	No TBV
Thallium	6.9	1E+01	2E+00	2E-02	4E-04	6E-01	1E-01	4E-04	7E+00	4E-04	3E+00
Total Petroleum Hydrocarbons	115	7E-01	1E-01	1E-03	2E-05	5E-03	8E-04	2E-06	No TBV	5E-06	2E-01
Zinc	453	7E+01	8E+00	1E-02	3E-04	2E+00	4E-01	2E-04	9E+00	7E-05	2E+00
Sum		**5E+03**	**7E+02**	**2E+00**	**1E-01**	**1E+02**	**9E+00**	**2E-02**	**3E+01**	**9E-02**	**5E+02**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-67 Hazard Indices for Exposure to Shallow Soils (< 3ft) at the Building 900s Series Study Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna	Mallard Duck	Sandpiper
m-Xylene	0.595	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
1,4-Dichlorobenzene	1.051479	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
2-Methylnaphthalene	0.14	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-08	No TBV	No TBV	No TBV
Anthracene	0.068	No TBV	No TBV	No TBV	No TBV	6E-05	1E-05	3E-08	No TBV	No TBV	No TBV
Arsenic	4.381334	1E-02	2E-03	1E-05	5E-07	2E-03	3E-04	7E-07	2E-02	6E-07	3E-03
Bis(2-ethylhexyl)phthalate	10.46542	9E-03	1E-03	7E-06	3E-07	2E-04	3E-05	7E-08	9E-03	4E-07	2E-03
Barium	285.2439	2E-01	3E-02	2E-04	8E-06	7E-02	1E-02	3E-05	6E-01	9E-06	5E-02
Benzo[*a*]anthracene	0.11	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-08	2E-03	No TBV	No TBV
Trichlorofluoromethane	1.143504	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Cadmium	4.711662	1E+01	2E-01	3E-04	1E-05	1E+00	5E-02	2E-04	5E-02	1E-05	8E-02
Methylene chloride	10	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	0.139	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-08	3E-03	No TBV	No TBV
Copper	167.6174	3E+00	3E-01	3E-04	5E-05	1E+00	1E-01	3E-04	4E-01	1E-05	8E-02
Cyanide	0.504099	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	6E-07	No TBV	No TBV	No TBV
Dieldrin	0.003	4E-02	2E-04	3E-05	7E-08	8E-03	3E-05	5E-06	3E-05	4E-08	2E-04
Di-*n*-butyl phthalate	3	4E-01	6E-02	3E-04	1E-05	No TBV	No TBV	No TBV	3E-03	2E-05	9E-02
Fluoranthene	0.249903	No TBV	No TBV	No TBV	No TBV	2E-04	2E-05	6E-08	3E-03	No TBV	No TBV
Mercury	0.33357	6E-02	5E-04	9E-05	4E-06	2E-02	1E-04	3E-06	3E-02	2E-07	9E-04
Methyl isobutyl ketone	1.455844	No TBV	No TBV	No TBV	No TBV	8E-04	1E-04	3E-07	No TBV	No TBV	No TBV
Napthalene	0.23	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	9E-08	5E-03	No TBV	No TBV
Lead	1973.553	3E+01	6E+00	1E-02	7E-04	5E-01	1E-01	6E-05	2E+00	8E-04	4E+00
PCB 1254	3.53	7E+00	4E-02	2E-03	6E-04	1E+00	4E-03	1E-04	1E-02	1E-05	7E-02
PCB 1260	0.355	7E-01	4E-03	2E-04	6E-05	1E-01	4E-04	1E-05	1E-03	1E-06	7E-03
Phenanthrene	0.26453	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	7E-08	4E-03	No TBV	No TBV
PPDDD	0.004	4E-03	3E-05	4E-05	1E-07	4E-05	2E-07	4E-09	2E-05	8E-09	5E-05
PPDDE	0.01	1E-02	8E-05	1E-05	3E-07	9E-05	5E-07	1E-08	5E-05	2E-08	1E-04
PPDDT	0.007	7E-03	5E-05	7E-05	2E-07	6E-05	3E-07	7E-09	4E-05	1E-08	8E-05
Pyrene	0.42	No TBV	No TBV	No TBV	No TBV	4E-04	6E-05	2E-07	8E-03	No TBV	No TBV
Antimony	5.3	No TBV	No TBV	No TBV	No TBV	3E-02	4E-03	1E-05	1E+00	No TBV	No TBV
Tetrachloroethylene	0.489	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	8E-08	No TBV	No TBV	No TBV
Thallium	6.9	4E-02	6E-03	3E-05	1E-06	2E-02	3E-03	9E-06	7E+00	2E-06	1E-02
Total Petroleum Hydrocarbons	119.2926	1E-02	2E-03	1E-05	5E-07	2E-04	3E-05	9E-08	No TBV	5E-07	3E-03
Zinc	470.8993	3E+00	3E-01	3E-04	1E-05	3E-01	5E-02	2E-05	5E-01	1E-05	8E-02
Sum		**6E+01**	**7E+00**	**2E-02**	**1E-03**	**5E+00**	**4E-01**	**7E-04**	**1E+01**	**8E-04**	**5E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-68 Hazard Indices for Exposure to Shallow Soils (<3ft) at the DEH Study Area (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1,1,1-Trichloroethane	0.3700	No TBV	No TBV	No TBV	No TBV	9E-05	2E-05	5E-08	No TBV
1,2-Dichlorobenzene	0.0888	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
2,4-Dichlorophenol	0.1005	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
2-Methylnapithalene	0.1386	No TBV	No TBV	No TBV	No TBV	4E-03	8E-04	2E-06	No TBV
Endosulfan / alpha-Endosulfan	0.5320	6E-01	9E-02	9E-04	2E-05	No TBV	No TBV	No TBV	5E-04
Aldrin	0.2800	4E-01	6E-02	6E-04	1E-05	3E-02	6E-03	8E-05	6E-03
Acenaphthene	0.1534	No TBV	No TBV	No TBV	No TBV	4E-03	9E-04	3E-06	5E-03
Antimony	166.0000	No TBV	No TBV	No TBV	No TBV	2E+00	5E-01	2E-03	3E+01
Bis(2-ethylhexyl)phthalate	1.5400	4E-02	5E-03	5E-05	1E-06	8E-04	2E-04	5E-07	2E-02
Benzo[*a*]anthracene	0.4458	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	7E-06	1E-02
Benzo[*a*]pyrene	0.1100	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	2E-06	4E-03
Benzo[*b*]fluoranthene	0.1100	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	2E-06	4E-03
Benzo[*k*]fluoranthene	0.0790	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	1E-06	No TBV
Cadmium	1.2254	9E+01	2E+00	4E-03	8E-05	2E+01	5E-01	1E-03	4E-01
Carbazole	2.2100	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chlordane	80.0000	2E+03	9E+00	2E+00	8E-03	No TBV	No TBV	No TBV	No TBV
Chromium	264.3151	2E+02	2E+01	2E-01	5E-03	6E-01	1E-01	2E-04	7E+02
Chrysene	0.4372	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	7E-06	1E-02
Copper	167.4969	2E+01	2E+00	3E-03	3E-04	2E+00	2E-01	2E-03	3E+00
Cyanide	0.2647	No TBV	No TBV	No TBV	No TBV	1E-01	3E-02	7E-05	No TBV
delta-Hexachlorocyclohexane	0.0560	2E-02	3E-03	2E-05	5E-07	No TBV	No TBV	No TBV	No TBV
Dieldrin	1.2857	8E+01	3E-01	1E-01	1E-04	1E+01	6E-02	8E-03	3E-02
Dimethyl phthalate	0.0737	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Di-*n*-butyl phthalate	1.6000	1E+00	9E-02	1E-03	3E-05	8E-04	2E-04	5E-07	2E-02
Endrin	4.5800	1E+02	2E+01	1E-01	3E-03	2E-02	4E-03	8E-06	No TBV
Fluoranthene	0.1874	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	3E-06	6E-03
Fluorene / 9*H*-Fluorene	0.2059	No TBV	No TBV	No TBV	No TBV	6E-03	1E-03	3E-06	7E-03
Heptachlor	0.7660	1E+01	2E-01	6E-02	8E-05	No TBV	No TBV	No TBV	No TBV
Indeno[1,2,3-C,D]pyrene	0.0440	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	7E-07	1E-03
Lead	420.7701	8E+02	2E+02	3E-01	1E-02	5E+00	1E+00	8E-04	9E-01
Lindane	0.3737	3E-01	4E-02	4E-04	9E-06	No TBV	No TBV	No TBV	No TBV
Manganese	2699.9030	5E+00	7E-01	7E-03	2E-04	4E-01	8E-02	2E-04	5E+00
Toluene	0.2960	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	1E-03
Mercury	0.1576	9E+00	9E-02	1E-02	6E-04	2E-01	1E-03	3E-05	5E-01
Methoxychlor	0.0640	1E-03	2E-04	2E-06	4E-08	No TBV	No TBV	No TBV	No TBV
Phenanthrene	0.3989	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	7E-06	1E-02
Phenol / Carbolic acid	0.1178	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
ppDDD	0.6406	3E+01	2E-01	6E-02	5E-04	9E-02	6E-04	1E-05	2E-02
ppDDE	0.0090	2E-01	2E-03	5E-04	6E-06	1E-03	8E-06	2E-07	2E-04
PPDDT	1.1347	4E+02	3E+00	4E-01	1E-02	2E-01	1E-03	3E-05	3E-02
Pyrene	0.1858	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	3E-06	6E-03
Selenium	0.6660	6E+01	1E+01	5E-03	1E-04	6E+01	1E+01	4E-03	7E-01
Silver	2.0199	9E-02	1E-02	1E-04	3E-06	8E-04	2E-04	5E-07	1E+00
Toluene	0.3000	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	2E-03
TPH-Diesel	25.0000	1E-01	2E-02	2E-04	5E-06	1E-03	2E-04	3E-07	No TBV
Zinc	362.4969	5E+01	6E+00	1E-02	2E-04	1E+00	3E-01	2E-04	7E+00
Sum		4E+03	2E+02	4E+00	4E-02	1E+02	2E+01	2E-02	7E+02

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-68 Hazard Indices for Exposure to Shallow Soils (<3ft) at the DEH Study Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1,1,1-Trichloroethane	0.3700	No TBV	No TBV	No TBV	No TBV	6E-07	1E-07	2E-10	No TBV
1,2-Dichlorobenzene	0.0888	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
2,4-Dichlorophenol	0.1005	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
2-Methylnaphthalene	0.1386	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-08	No TBV
Endosulfan / alpha-Endosulfan	0.5320	3E-03	4E-04	2E-06	8E-08	No TBV	No TBV	No TBV	5E-04
Aldrin	0.2800	8E-02	1E-02	6E-05	3E-06	8E-03	1E-03	2E-05	3E-03
Acenaphthene	0.1534	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-08	3E-03
Antimony	166.0000	No TBV	No TBV	No TBV	No TBV	8E-01	1E-01	3E-04	3E+01
Bis(2-ethylhexyl)phthalate	1.5400	1E-03	2E-04	1E-06	5E-08	3E-05	4E-06	1E-08	2E-03
Benzo[a]anthracene	0.4458	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	1E-07	9E-03
Benzo[*a*]pyrene	0.1100	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-08	2E-03
Benzo[*b*]fluoranthene	0.1100	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-08	2E-03
Benzo[*k*]fluoranthene	0.0790	No TBV	No TBV	No TBV	No TBV	7E-05	1E-05	3E-08	No TBV
Cadmium	*1.2254*	3E+00	6E-02	7E-05	3E-06	4E-01	1E-02	3E-05	1E-02
Carbazole	2.2100	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chlordane	80.0000	3E+02	9E-01	1E-01	8E-04	7E+00	2E-02	7E-04	No TBV
Chromium	264.3151	3E+01	4E+00	2E-02	9E-04	1E-01	2E-02	4E-05	1E+00
Chrysene	0.4372	No TBV	No TBV	No TBV	No TBV	4E-04	6E-05	1E-07	9E-03
Copper	167.4969	3E+00	3E-01	2E-04	5E-05	1E+00	1E-01	2E-04	4E-01
Cyanide	0.2647	No TBV	No TBV	No TBV	No TBV	8E-04	1E-04	3E-07	No TBV
delta-Hexachlorocyclohexane	0.0560	7E-05	1E-05	5E-08	2E-09	No TBV	No TBV	No TBV	No TBV
Dieldrin	1.2857	2E+01	7E-02	1E-02	3E-05	3E+00	1E-02	2E-03	*1E-02*
Dimethyl phthalate	0.0737	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Di-*n*-butyl phthalate	1.6000	2E-01	3E-02	1E-04	7E-06	No TBV	No TBV	No TBV	2E-03
Endrin	4.5800	4E+00	5E-01	2E-03	1E-04	2E-04	4E-05	8E-08	No TBV
Fluoranthene	0.1874	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	6E-08	4E-03
Fluorene / *9H*-Fluorene	0.2059	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	7E-08	4E-03
Heptachlor	0.7660	2E+00	3E-02	6E-03	2E-05	No TBV	No TBV	No TBV	No TBV
Indeno[1,2,3-*C,D*]pyrene	0.0440	No TBV	No TBV	No TBV	No TBV	4E-05	6E-06	1E-08	9E-04
Lead	420.7701	7E+00	1E+00	3E-03	1E-04	1E-01	2E-02	1E-05	4E-01
Lindane	0.3737	6E-02	8E-03	4E-05	2E-06	No TBV	No TBV	No TBV	No TBV
Manganese	2699.9030	1E+00	1E-01	7E-04	3E-05	4E-02	6E-03	1E-05	5E+00
Toluene	0.2960	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	3E-04
Mercury	0.1576	3E-02	3E-04	4E-05	2E-06	1E-02	6E-05	1E-06	2E-02
Methoxychlor	0.0640	5E-06	7E-07	3E-09	1E-10	No TBV	No TBV	No TBV	No TBV
Phenanthrene	0.3989	No TBV	No TBV	No TBV	No TBV	4E-04	6E-05	1E-07	8E-03
Phenol / Carbolic acid	0.1178	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
ppDDD	0.6406	6E-01	5E-03	6E-03	2E-05	6E-03	3E-05	6E-07	3E-03
ppDDE	0.0090	9E-03	7E-05	1E-05	2E-07	8E-05	4E-07	8E-09	4E-05
PPDDT	1.1347	1E+00	9E-03	1E-02	3E-05	1E-02	5E-05	1E-06	6E-03
Pyrene	0.1858	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	6E-08	4E-03
Selenium	0.6660	1E+01	2E+00	5E-04	2E-05	4E+00	7E-01	2E-04	1E-02
Silver	2.0199	3E-03	5E-04	2E-06	1E-07	3E-04	5E-05	1E-07	1E+00
Toluene	0.3000	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	3E-04
TPH-Diesel	25.0000	3E-03	4E-04	2E-06	9E-08	4E-05	7E-06	2E-08	No TBV
Zinc	362.4969	2E+00	3E-01	2E-04	9E-06	2E-01	4E-02	2E-05	4E-01
Sum		**4E+02**	**1E+01**	**2E-01**	**2E-03**	**2E+01**	**1E+00**	**4E-03**	**4E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-69 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 228, Main Post Study Area

HI HIGH

Location	Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
228	Bis(2-ethylhexyl) phthalate	0.44	9E-04	3E-04	2E-07	5E-09	4E-05	9E-06	2E-09	4E-03

HI LOW

Location	Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
228	Bis(2-ethylhexyl) phthalate	0.44	4E-05	1E-05	4E-09	2E-10	1E-06	2E-07	4E-11	4E-04

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-70 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Buidling 1167, Main Post Study Area

HI HIGH

Location	Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1167	Lead	586	2E+02	7E+01	1E-02	5E-04	2E+00	6E-01	3E-05	1E+00
	Mercury	1.04	1E+01	2E-01	2E-03	1E-04	3E-01	3E-03	5E-06	3E+00
	Zinc	897	2E+01	5E+00	6E-04	1E-05	1E+00	3E-01	1E-05	2E+01
Sum			**2E+02**	**7E+01**	**1E-02**	**7E-04**	**3E+00**	**9E-01**	**5E-05**	**2E+01**

HI LOW

Location	Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1167	Lead	586	2E+00	6E-01	1E-04	5E-06	5E-02	1E-02	4E-07	6E-01
	Mercury	1.04	3E-02	6E-04	7E-06	3E-07	2E-02	1E-04	2E-07	1E-01
	Zinc	897	9E-01	2E-01	1E-05	6E-07	2E-01	3E-02	1E-06	1E+00
Sum			**3E+00**	**8E-01**	**1E-04**	**6E-06**	**3E-01**	**4E-02**	**2E-06**	**2E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-71 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 1151, Main Post Study Area

HI HIGH

Location	Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1151	PCB 1260	11.284	2E+02	2E+00	2E-02	2E-03	1E+01	9E-02	2E-04	3E-01

HI LOW

Location	Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
1151	PCB 1260	11.284	4E+00	4E-02	2E-04	5E-05	9E-01	4E-03	8E-06	5E-02

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-72 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Fill Site 1, Fill Sites and Landfills

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Bis(2-ethylhexyl) phthalate	6.2	1E-01	2E-02	1E-04	3E-06	3E-03	7E-04	2E-06	6E-02
Fluoranthene	0.05	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	6E-07	2E-03
Sum		**1E-01**	**2E-02**	**1E-04**	**3E-06**	**5E-03**	**1E-03**	**2E-06**	**6E-02**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Bis(2-ethylhexyl) phthalate	6.2	6E-03	8E-04	3E-06	1E-07	1E-04	2E-05	3E-08	6E-03
Fluoranthene	0.05	No TBV	No TBV	No TBV	No TBV	4E-05	7E-06	1E-08	1E-03
Sum		**6E-03**	**8E-04**	**3E-06**	**1E-07**	**2E-04**	**3E-05**	**4E-08**	**7E-03**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-73 Hazard Indices for Exposure to Shallow Soils (<3ft) at Landfill 2, Fill Sites and Landfills

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Barium	1040	8E+00	1E+00	4E-03	8E-05	8E-01	2E-01	2E-04	2E+00
Chrysene	0.954	No TBV	No TBV	No TBV	No TBV	3E-02	6E-03	5E-06	3E-02
Copper	202	3E+01	2E+00	1E-03	1E-04	2E+00	3E-01	7E-04	4E+00
Fluoranthene	1.72	No TBV	No TBV	No TBV	No TBV	5E-02	1E-02	1E-05	6E-02
MCPP	4.85	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Lead	415.7204	8E+02	1E+02	1E-01	5E-03	5E+00	1E+00	3E-04	8E-01
Phenanthrene	2.77	No TBV	No TBV	No TBV	No TBV	7E-02	2E-02	2E-05	9E-02
PPDDT	3.04	1E+03	8E+00	4E-01	9E-03	4E-01	3E-03	2E-05	8E-02
Pyrene	1.84	No TBV	No TBV	No TBV	No TBV	5E-02	1E-02	1E-05	6E-02
Zinc	626	9E+01	1E+01	6E-03	1E-04	3E+00	5E-01	9E-05	1E+01
Sum		**2E+03**	**2E+02**	**5E-01**	**1E-02**	**1E+01**	**2E+00**	**1E-03**	**2E+01**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Barium	1040	8E-01	1E-01	2E-04	8E-06	3E-01	4E-02	3E-05	2E+00
Chrysene	0.954	No TBV	No TBV	No TBV	No TBV	9E-04	1E-04	1E-07	2E-02
Copper	202	4E+00	4E-01	1E-04	2E-05	1E+00	2E-01	1E-04	5E-01
Fluoranthene	1.72	No TBV	No TBV	No TBV	No TBV	2E-03	3E-04	2E-07	3E-02
MCPP	4.85	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Lead	415.7204	7E+00	1E+00	1E-03	4E-05	1E-01	2E-02	4E-06	4E-01
Phenanthrene	2.77	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	3E-07	6E-02
PPDDT	3.04	3E+00	2E-02	9E-03	3E-05	3E-02	1E-04	9E-07	2E-02
Pyrene	1.84	No TBV	No TBV	No TBV	No TBV	2E-03	3E-04	2E-07	4E-02
Zinc	626	4E+00	4E-01	1E-04	5E-06	4E-01	6E-02	9E-06	7E-01
Sum		**2E+01**	**2E+00**	**1E-02**	**1E-04**	**2E+00**	**3E-01**	**1E-04**	**4E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-74 Hazard Indices for Receptors Exposed to Water and Sediment at El Polin Spring, Fill Sites and Landfills (page 1 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Amphibians[1]	Raccoon[2]	American Robin[3]	Mourning Dove[3]	Peregrine Falcon[3]	Red-tailed Hawk[3]	Western Harvest Mouse[3]	Valley Pocket Gopher[3]
Aluminum	484	NA	No TBV	No TBV	No TBV	3E-02	3E-04	2E-05	6E-04	1E-04	5E-02	NA
Antimony	7.1	NA	No TBV	No TBV	No TBV	2E-03	No TBV	No TBV	No TBV	No TBV	3E-03	NA
Barium	79.5	NA	2E+01	2E+01	2E+01	9E-04	5E-04	6E-05	1E-03	2E-04	2E-03	NA
Beryllium	1	NA	2E-01	2E-01	2E-01	2E-05	1E-05	1E-06	2E-05	6E-06	4E-05	NA
Cadmium	4	NA	4E+00	4E+00	4E+00	7E-02	6E-03	7E-04	1E-02	3E-03	2E-02	NA
Chromium	44.8	NA	2E-01	2E-01	2E-01	7E-04	2E-02	2E-03	4E-02	1E-02	3E-03	NA
Chromium VI	29.7	NA	3E+00	3E+00	3E+00	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Copper	59.6	NA	2E+01	2E+01	2E+01	2E-01	7E-04	7E-05	1E-03	3E-04	6E-04	NA
Cyanide	9	NA	9E+00	9E+00	9E+00	6E-02	No TBV	No TBV	No TBV	No TBV	1E-01	NA
Fluoride	806	NA	No TBV	No TBV	No TBV	2E-01	No TBV	No TBV	No TBV	No TBV	4E-01	NA
Iron	1760	NA	2E+00	2E+00	2E+00	7E-03	3E-03	3E-04	5E-03	1E-03	1E-02	NA
Lead	4.34	NA	2E+00	2E+00	2E+00	2E-02	4E-03	5E-04	4E-03	2E-03	3E-04	NA
Manganese	118	NA	1E+00	1E+00	1E+00	2E-04	2E-04	2E-05	3E-04	8E-05	4E-04	NA
Mercury	0.118	NA	1E-01	1E-01	1E-01	2E-03	4E-04	4E-05	4E-04	2E-04	1E-04	NA
Nickel	36.3	NA	4E+00	4E+00	4E+00	1E-03	1E-03	1E-04	2E-03	6E-04	9E-04	NA
Vanadium	7	NA	4E-01	4E-01	4E-01	6E-02	9E-03	1E-03	2E-02	4E-03	1E-01	NA
Zinc	57	NA	7E-01	7E-01	7E-01	3E-02	1E-03	1E-04	2E-03	4E-04	3E-04	NA
Chloride	85300	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Nitrate	187	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Nitrite/Nitrate	1900	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	21000	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TDS	484000	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sum			**7E+01**	**7E+01**	**7E+01**	**7E-01**	**5E-02**	**5E-03**	**9E-02**	**2E-02**	**7E-01**	

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-74 Hazard Indices for Receptors Exposed to Water and Sediment at El Polin Spring, Fill Sites and Landfills (page 2 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants[1]	Aquatic Invertebrates[1]	Amphibians[1]	Raccoon[2]	American Robin[3]	Mourning Dove[3]	Peregrine Falcon[3]	Red-tailed Hawk[3]	Western Harvest Mouse[3]	Valley Pocket Gopher[3]
Aluminum	484	NA	No TBV	No TBV	No TBV	1E-03	6E-05	7E-06	6E-05	3E-05	3E-03	NA
Antimony	7.1	NA	No TBV	No TBV	No TBV	3E-04	No TBV	No TBV	No TBV	No TBV	1E-03	NA
Barium	79.5	NA	2E+01	2E+01	2E+01	2E-04	5E-05	6E-06	5E-05	2E-05	6E-04	NA
Beryllium	1	NA	2E-01	2E-01	2E-01	2E-06	3E-07	3E-08	2E-07	1E-07	6E-06	NA
Cadmium	4	NA	4E-01	4E-01	4E-01	2E-03	3E-04	3E-05	2E-04	1E-04	4E-04	NA
Chromium	44.8	NA	2E-01	2E-01	2E-01	2E-04	4E-03	5E-04	4E-03	2E-03	6E-04	NA
Chromium VI	29.7	NA	6E-01	6E-01	6E-01	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Copper	59.6	NA	5E+00	5E+00	5E+00	3E-02	1E-04	1E-05	1E-04	5E-05	4E-04	NA
Cyanide	9	NA	2E+00	2E+00	2E+00	2E-04	No TBV	No TBV	No TBV	No TBV	8E-04	NA
Fluoride	806	NA	No TBV	No TBV	No TBV	2E-02	No TBV	No TBV	No TBV	No TBV	6E-02	NA
Iron	1760	NA	2E+00	2E+00	2E+00	3E-04	6E-04	6E-05	5E-04	3E-04	9E-04	NA
Lead	4.34	NA	5E-01	5E-01	5E-01	3E-04	4E-05	4E-06	4E-05	2E-05	6E-06	NA
Manganese	118	NA	1E+00	1E+00	1E+00	2E-05	4E-05	4E-06	3E-05	2E-05	5E-05	NA
Mercury	0.118	NA	9E-02	9E-02	9E-02	7E-05	1E-06	1E-07	1E-06	6E-07	8E-06	NA
Nickel	36.3	NA	2E-01	2E-01	2E-01	3E-04	5E-05	6E-06	5E-05	2E-05	6E-05	NA
Vanadium	7	NA	4E-01	4E-01	4E-01	1E-02	2E-03	2E-04	2E-03	8E-04	4E-02	NA
Zinc	57	NA	6E-01	6E-01	6E-01	3E-03	4E-05	4E-06	4E-05	2E-05	4E-05	NA
Chloride	85300	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Nitrate	187	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Nitrite/Nitrate	1900	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	21000	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TDS	484000	NA	No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sum			**3E+01**	**3E+01**	**3E+01**	**7E-02**	**8E-03**	**8E-04**	**7E-03**	**3E-03**	**1E-01**	

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-75 Hazard Indices for Exposure to Shallow Soils (< 3ft) at the Transfer Station, Fill Sites and Landfills (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
2-Methylnaphthalene	0.081	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	4E-07	No TBV
4-Methylphenol	1.045	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Acenaphthene	0.095	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	5E-07	8E-03
Aldrin	0.003	5E-03	6E-04	2E-06	4E-08	3E-04	7E-05	3E-07	6E-05
Aluminum	24080.316	2E+01	2E+00	8E-03	2E-04	8E+01	2E+01	2E-02	5E+02
Bis(2-ethylhexyl)phthalate	9.476	2E-01	3E-02	1E-04	2E-06	5E-03	1E-03	1E-06	9E-02
Benzo[a]anthracene	0.375	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	2E-06	1E-02
Barium	321.564	2E+00	3E-01	1E-03	2E-05	2E-01	5E-02	5E-05	6E-01
b-Endosulfan	0.003	4E-03	5E-04	2E-06	3E-08	No TBV	No TBV	No TBV	3E-06
Chlordane	0.061	3E-02	6E-03	2E-05	4E-07	2E-03	4E-04	3E-07	No TBV
Chrysene	0.731	No TBV	No TBV	No TBV	No TBV	2E-02	4E-03	4E-06	2E-02
Dieldrin	0.011	7E-01	3E-03	3E-04	3E-07	1E-01	5E-04	2E-05	2E-04
Endrin	0.007	2E-01	2E-02	7E-05	2E-06	3E-05	6E-06	4E-09	No TBV
Fluoranthene	0.127	No TBV	No TBV	No TBV	No TBV	3E-03	7E-04	7E-07	4E-03
Heptachlor	0.003	3E-02	5E-04	6E-05	8E-08	No TBV	No TBV	No TBV	No TBV
Heptachlor epoxide	0.002	3E-02	4E-04	5E-05	6E-08	No TBV	No TBV	No TBV	No TBV
Isodrin	0.002	5E-02	7E-03	2E-05	5E-07	1E-05	2E-06	1E-09	No TBV
Lead	237.690	5E+02	9E+01	6E-02	3E-03	3E+00	7E-01	1E-04	5E-01
Lindane	0.004	3E-03	4E-04	1E-06	3E-08	No TBV	No TBV	No TBV	No TBV
Mercury	4.166	2E+02	2E+00	1E-01	5E-03	4E+00	3E-02	2E-04	1E+01
Phenanthrene	12.018	No TBV	No TBV	No TBV	No TBV	3E-01	7E-02	6E-05	4E-01
PPDDD	0.008	4E-01	3E-03	2E-04	2E-06	1E-03	7E-06	6E-08	2E-04
PPDDE	0.004	1E-01	7E-04	7E-05	8E-07	5E-04	4E-06	3E-08	1E-04
PPDDT	0.048	2E+01	1E-01	5E-03	1E-04	6E-03	4E-05	3E-07	1E-03
Pyrene	8.407	No TBV	No TBV	No TBV	No TBV	2E-01	5E-02	4E-05	3E-01
Vanadium	104.357	2E+02	2E+01	7E-02	2E-03	6E+01	1E+01	1E-02	5E+01
Sum		**9E+02**	**1E+02**	**2E-01**	**9E-03**	**1E+02**	**3E+01**	**3E-02**	**5E+02**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-75 Hazard Indices for Exposure to Shallow Soils (< 3ft) at the Transfer Station, Fill Sites and Landfills (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
2-Methylnaphthalene	0.081	No TBV	No TBV	No TBV	No TBV	7E-05	1E-05	8E-09	No TBV
4-Methylphenol	1.045	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Acenapthene	0.095	No TBV	No TBV	No TBV	No TBV	8E-05	1E-05	1E-08	4E-03
Aldrin	0.003	9E-04	1E-04	2E-07	9E-09	9E-05	1E-05	6E-08	3E-05
Aluminum	24080.316	4E+00	5E-01	8E-04	4E-05	5E+00	9E-01	6E-04	9E+00
Bis(2-ethylhexyl)phthalate	9.476	9E-03	1E-03	2E-06	9E-08	2E-04	3E-05	2E-08	9E-03
Benzo[a]anthracene	0.375	No TBV	No TBV	No TBV	No TBV	3E-04	6E-05	4E-08	8E-03
Barium	321.564	2E-01	3E-02	5E-05	2E-06	8E-02	1E-02	9E-06	6E-01
b-Endosulfan	0.003	1E-05	2E-06	3E-09	1E-10	No TBV	No TBV	No TBV	3E-06
Chlordane	0.061	4E-03	6E-04	9E-07	4E-08	5E-05	9E-06	6E-09	No TBV
Chrysene	0.731	No TBV	No TBV	No TBV	No TBV	7E-04	1E-04	8E-08	1E-02
Dieldrin	0.011	1E-01	6E-04	3E-05	7E-08	3E-02	1E-04	5E-06	1E-04
Endrin	0.007	6E-03	8E-04	1E-06	5E-08	3E-07	6E-08	4E-11	No TBV
Fluoranthene	0.127	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	1E-08	3E-03
Heptachlor	0.003	7E-03	1E-04	6E-06	2E-08	No TBV	No TBV	No TBV	No TBV
Heptachlor epoxide	0.002	5E-03	8E-05	5E-06	1E-08	No TBV	No TBV	No TBV	No TBV
Isodrin	0.002	2E-03	2E-04	3E-07	2E-08	1E-07	2E-08	1E-11	No TBV
Lead	237.690	4E+00	8E-01	5E-04	2E-05	6E-02	1E-02	2E-06	2E-01
Lindane	0.004	6E-04	8E-05	1E-07	6E-09	No TBV	No TBV	No TBV	No TBV
Mercury	4.166	7E-01	7E-03	3E-04	2E-05	3E-01	2E-03	1E-05	4E-01
Phenanthrene	12.018	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	1E-06	2E-01
PPDDD	0.008	8E-03	6E-05	2E-05	6E-08	7E-05	4E-07	2E-09	4E-05
PPDDE	0.004	4E-03	3E-05	1E-06	3E-08	3E-05	2E-07	1E-09	2E-05
PPDDT	0.048	5E-02	4E-04	1E-04	4E-07	4E-04	2E-06	1E-08	2E-04
Pyrene	8.407	No TBV	No TBV	No TBV	No TBV	7E-03	1E-03	9E-07	2E-01
Vanadium	104.357	3E+01	5E+00	7E-03	3E-04	2E+01	3E+00	2E-03	5E+00
Sum		**4E+01**	**6E+00**	**9E-03**	**4E-04**	**2E+01**	**4E+00**	**3E-03**	**2E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-76 Hazard Indices for Shallow Soils (< 3ft) at Landfill 4, Fill Sites and Landfills (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
p-Cresol	0.626	no TBV	no TBV	no TBV	no TBV	no TBV	no TBV	no TBV	No TBV
a-Endosulfan	0.011	1E-02	2E-03	4E-06	1E-07	no TBV	no TBV	no TBV	1E-05
Aldrin	0.002	3E-03	4E-04	1E-06	2E-08	2E-04	5E-05	1E-07	4E-05
b-Endosulfan	0.002	2E-03	3E-04	8E-07	2E-08	no TBV	no TBV	no TBV	2E-06
Chlordane	0.012	3E-01	1E-03	9E-05	3E-07	no TBV	no TBV	no TBV	No TBV
d-Benzene hexachloride	0.027	9E-03	1E-03	3E-06	6E-08	no TBV	no TBV	no TBV	No TBV
Dieldrin	0.011	7E-01	3E-03	2E-04	3E-07	1E-01	5E-04	2E-05	2E-04
Heptachlor	0.006	8E-02	1E-03	1E-04	1E-07	no TBV	no TBV	no TBV	No TBV
Heptachlor epoxide	0.003	4E-02	6E-04	5E-05	7E-08	no TBV	no TBV	no TBV	No TBV
Isodrin	0.005	1E-01	2E-02	4E-05	9E-07	2E-05	4E-06	2E-09	No TBV
Lead	474.000	9E+02	2E+02	9E-02	4E-03	5E+00	1E+00	2E-04	1E+00
Lindane	0.007	5E-03	8E-04	2E-06	4E-08	no TBV	no TBV	no TBV	No TBV
ppDDD	0.012	6E-01	5E-03	3E-04	2E-06	2E-03	1E-05	7E-08	3E-04
ppDDT	0.020	7E+00	5E-02	2E-03	4E-05	3E-03	2E-05	1E-07	5E-04
Sum		**9E+02**	**2E+02**	**9E-02**	**4E-03**	**6E+00**	**1E+00**	**2E-04**	**1E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-76 Hazard Indices for Shallow Soils (< 3ft) at Landfill 4, Fill Sites and Landfills (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
p-Cresol	0.626	no TBV	no TBV	no TBV	no TBV	no TBV	no TBV	no TBV	No TBV
a-Endosulfan	0.011	5E-05	7E-06	9E-09	4E-10	no TBV	no TBV	no TBV	1E-05
Aldrin	0.002	6E-04	8E-05	1E-07	5E-09	6E-05	9E-06	3E-08	2E-05
b-Endosulfan	0.002	1E-05	1E-06	2E-09	7E-11	no TBV	no TBV	no TBV	2E-06
Chlordane	0.012	4E-02	1E-04	5E-06	3E-08	no TBV	no TBV	no TBV	No TBV
d-Benzene hexachloride	0.027	3E-05	5E-06	6E-09	3E-10	no TBV	no TBV	no TBV	No TBV
Dieldrin	0.011	1E-01	6E-04	2E-05	6E-08	3E-02	1E-04	4E-06	1E-04
Heptachlor	0.006	2E-02	2E-04	1E-05	3E-08	no TBV	no TBV	no TBV	No TBV
Heptachlor epoxide	0.003	8E-03	1E-04	5E-06	1E-08	no TBV	no TBV	no TBV	No TBV
Isodrin	0.005	4E-03	6E-04	7E-07	3E-08	2E-07	4E-08	2E-11	No TBV
Lead	474.000	8E+00	2E+00	8E-04	4E-05	1E-01	3E-02	3E-06	5E-01
Lindane	0.007	1E-03	2E-04	2E-07	8E-09	no TBV	no TBV	no TBV	No TBV
ppDDD	0.012	1E-02	9E-05	3E-05	8E-08	1E-04	6E-07	3E-09	6E-05
ppDDT	0.020	2E-02	2E-04	4E-05	1E-07	2E-04	9E-07	4E-09	1E-04
Sum		**9E+00**	**2E+00**	**9E-04**	**4E-05**	**2E-01**	**3E-02**	**8E-06**	**5E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-77 Hazard Indices for Exposure to Shallow Soils (<3ft) at Landfill 5, Fill Sites and Landfills

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Endosulfan II / beta-Endosulfan	0.001	1E-03	2E-04	4E-07	9E-09	No TBV	No TBV	No TBV	1E-06
Dieldrin	0.004	3E-01	1E-03	7E-05	1E-07	4E-02	2E-04	6E-06	8E-05
Fluoranthene	0.08	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	3E-07	3E-03
Heptachlor	0.002	3E-02	4E-04	4E-05	5E-08	No TBV	No TBV	No TBV	No TBV
ppDDD	0.01	5E-01	4E-03	2E-04	2E-06	1E-03	9E-06	6E-08	3E-04
ppDDT	0.01	3E+00	3E-02	9E-04	2E-05	1E-03	9E-06	6E-08	3E-04
Sum		**4E+00**	**3E-02**	**1E-03**	**2E-05**	**4E-02**	**7E-04**	**7E-06**	**3E-03**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Endosulfan II / beta-Endosulfan	0.001	5E-06	7E-07	8E-10	4E-11	No TBV	No TBV	No TBV	1E-06
Dieldrin	0.004	5E-02	2E-04	7E-06	2E-08	1E-02	4E-05	2E-06	4E-05
Fluoranthene	0.08	No TBV	No TBV	No TBV	No TBV	7E-05	1E-05	7E-09	2E-03
Heptachlor	0.002	5E-03	8E-05	4E-06	1E-08	No TBV	No TBV	No TBV	No TBV
ppDDD	0.01	1E-02	8E-05	2E-05	6E-08	9E-05	5E-07	2E-09	5E-05
ppDDT	0.01	1E-02	8E-05	2E-05	6E-08	9E-05	5E-07	2E-09	5E-05
Sum		**8E-02**	**4E-04**	**5E-05**	**2E-07**	**1E-02**	**5E-05**	**2E-06**	**2E-03**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-78 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Graded Area 9, Fill Sites and Landfills

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Aluminum	46641.465	4E+01	3E+00	3E-02	8E-04	2E+02	3E+01	7E-02	9E+02
Acenaphthene	0.18	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	2E-06	6E-03
Bis(2-ethylhexyl)phthalate	0.48	1E-02	2E-03	1E-05	3E-07	3E-04	6E-05	1E-07	5E-03
Benzo[a]anthracene	0.127	No TBV	No TBV	No TBV	No TBV	3E-03	7E-04	2E-06	4E-03
Chrysene	0.121	No TBV	No TBV	No TBV	No TBV	3E-03	7E-04	1E-06	4E-03
Dieldrin	0.04	3E+00	1E-02	2E-03	3E-06	4E-01	2E-03	2E-04	8E-04
Fluoranthene	0.41	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	5E-06	1E-02
Fluorene	0.174	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	2E-06	6E-03
Phenanthrene	1.193	No TBV	No TBV	No TBV	No TBV	3E-02	7E-03	1E-05	4E-02
Pyrene	0.379	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	5E-06	1E-02
TPH-diesel	50	3E-01	4E-02	3E-04	6E-06	2E-03	4E-04	5E-07	NA
Vanadium	139.827	2E+02	3E+01	2E-01	5E-03	7E+01	2E+01	3E-02	7E+01
Sum		**3E+02**	**3E+01**	**2E-01**	**5E-03**	**2E+02**	**5E+01**	**1E-01**	**1E+03**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Aluminum	46641.465	7E+00	1E+00	3E-03	2E-04	1E+01	2E+00	3E-03	2E+01
Acenaphthene	0.18	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	4E-08	4E-03
Bis(2-ethylhexyl)phthalate	0.48	5E-04	6E-05	2E-07	1E-08	8E-06	1E-06	2E-09	5E-04
Benzo[a]anthracene	0.127	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	3E-08	3E-03
Chrysene	0.121	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	3E-08	2E-03
Dieldrin	0.04	5E-01	2E-03	2E-04	6E-07	1E-01	4E-04	5E-05	4E-04
Fluoranthene	0.41	No TBV	No TBV	No TBV	No TBV	4E-04	6E-05	1E-07	8E-03
Fluorene	0.174	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	4E-08	3E-03
Phenanthrene	1.193	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	3E-07	2E-02
Pyrene	0.379	No TBV	No TBV	No TBV	No TBV	3E-04	6E-05	9E-08	8E-03
TPH-diesel	50	6E-03	8E-04	3E-06	1E-07	9E-05	1E-05	2E-08	NA
Vanadium	139.827	4E+01	6E+00	2E-02	9E-04	2E+01	4E+00	7E-03	7E+00
Sum		**5E+01**	**7E+00**	**2E-02**	**1E-03**	**4E+01**	**6E+00**	**9E-03**	**2E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - *not applicable*

Table 15.2-79 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Landfill E, Fill Sites and Landfills

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
D-Benzene hexachloride	0.003	1E-03	1E-04	2E-06	3E-08	No TBV	No TBV	No TBV	No TBV
Endrin Aldehyde	0.005	1E-01	2E-02	2E-04	4E-06	2E-05	4E-06	1E-08	No TBV
Lindane	0.003	2E-03	3E-04	4E-06	8E-08	No TBV	No TBV	No TBV	No TBV
MCPP	4.84	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Toluene	0.005464	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Mercury	0.574	3E+01	3E-01	6E-02	3E-03	6E-01	5E-03	1E-04	2E+00
PPDDE	1.05	3E+01	2E-01	7E-02	8E-04	1E-01	1E-03	3E-05	3E-02
PPDDT	2.41	8E+02	6E+00	1E+00	2E-02	3E-01	2E-03	6E-05	6E-02
Silver	3230	1E+02	2E+01	2E-01	5E-03	1E+00	3E-01	1E-03	2E+03
TPH - diesel	4.491647	3E-02	4E-03	4E-05	1E-06	2E-04	3E-05	7E-08	NA
Zinc	400	8E+00	1E+00	1E-02	3E-04	6E-02	1E-02	5E-05	8E+00
Sum		**1E+03**	**3E+01**	**1E+00**	**3E-02**	**2E+00**	**3E-01**	**1E-03**	**2E+03**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
D-Benzene hexachloride	0.003	4E-06	5E-07	3E-09	1E-10	No TBV	No TBV	No TBV	No TBV
Endrin Aldehyde	0.005	4E-03	6E-04	3E-06	1E-07	2E-07	4E-08	1E-10	No TBV
Lindane	0.003	5E-04	7E-05	4E-07	2E-08	No TBV	No TBV	No TBV	No TBV
MCPP	4.84	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Toluene	0.005464	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Mercury	0.574	1E-01	1E-03	2E-04	8E-06	4E-02	2E-04	5E-06	6E-02
PPDDE	1.05	1E+00	8E-03	1E-03	3E-05	9E-03	5E-05	1E-06	5E-03
PPDDT	2.41	2E+00	2E-02	3E-02	7E-05	2E-02	1E-04	3E-06	1E-02
Silver	3230	6E+00	8E-01	4E-03	2E-04	4E-01	7E-02	2E-04	2E+03
TPH - diesel	4.491647	5E-04	8E-05	4E-07	2E-08	8E-06	1E-06	4E-09	NA
Zinc	400	3E-01	4E-02	2E-04	1E-05	1E-02	2E-03	5E-06	5E-01
Sum		**1E+01**	**9E-01**	**3E-02**	**3E-04**	**5E-01**	**7E-02**	**2E-04**	**2E+03**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-80 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 662, Miscellaneous Sites

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	391.55	8E+01	3E+01	5E-03	2E-04	9E-01	3E-01	1E-05	8E-01
Zinc	645.84	1E+01	2E+00	3E-04	7E-06	5E-01	1E-01	5E-06	1E+01
Bis(2-ethylhexyl) phthalate	2.23	6E-03	2E-03	1E-06	3E-08	2E-04	6E-05	1E-08	2E-02
Chrysene	0.2	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	6E-08	7E-03
Fluoranthene	0.31	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	9E-08	1E-02
Pyrene	0.48	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	1E-07	2E-02
Sum		**9E+01**	**3E+01**	**6E-03**	**2E-04**	**1E+00**	**4E-01**	**2E-05**	**1E+01**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	391.55	7E-01	3E-01	5E-05	2E-06	2E-02	5E-03	2E-07	4E-01
Zinc	645.84	4E-01	1E-01	6E-06	3E-07	9E-02	1E-02	5E-07	7E-01
Bis(2-ethylhexyl) phthalate	2.23	2E-04	6E-05	2E-08	1E-09	8E-06	1E-06	3E-10	2E-03
Chrysene	0.2	No TBV	No TBV	No TBV	No TBV	3E-05	7E-06	1E-09	4E-03
Fluoranthene	0.31	No TBV	No TBV	No TBV	No TBV	5E-05	1E-05	2E-09	6E-03
Pyrene	0.48	No TBV	No TBV	No TBV	No TBV	8E-05	2E-05	3E-09	1E-02
Sum		**1E+00**	**4E-01**	**5E-05**	**2E-06**	**1E-01**	**2E-02**	**7E-07**	**1E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-81 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 680, Miscellaneous Sites

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
PCB1260	13.593	1E+02	2E+00	1E-02	2E-03	1E+01	7E-02	2E-04	3E-01
Sum		**1E+02**	**2E+00**	**1E-02**	**2E-03**	**1E+01**	**7E-02**	**2E-04**	**3E-01**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
PCB1260	13.593	3E+00	4E-02	1E-04	4E-05	7E-01	3E-03	6E-06	6E-02
Sum		**3E+00**	**4E-02**	**1E-04**	**4E-05**	**7E-01**	**3E-03**	**6E-06**	**6E-02**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration

Table 15.2-82 Hazard Indices for Shallow Soils (<3ft) for Building 1351, Miscellaneous Sites

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
p-Cresol	7.000	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	44.710	7E-02	2E-02	2E-05	3E-07	3E-03	7E-04	2E-07	4E-01
Barium	155.870	8E-02	2E-02	2E-05	4E-07	1E-02	3E-03	8E-07	3E-01
Cadmium	17.600	8E+01	3E+00	5E-04	1E-05	3E+01	1E+00	2E-04	6E+00
Chrysene	0.131	No TBV	No TBV	No TBV	No TBV	4E-04	1E-04	2E-08	4E-03
Copper	83.590	7E-01	1E-01	2E-05	2E-06	1E-01	2E-02	8E-06	2E+00
Fluoranthene	0.070	No TBV	No TBV	No TBV	No TBV	2E-04	6E-05	1E-08	2E-03
Manganese	426.900	5E-02	1E-02	1E-05	2E-07	7E-03	2E-03	4E-07	9E-01
Mercury	0.160	6E-01	1E-02	1E-04	6E-06	2E-02	2E-04	3E-07	5E-01
Toluene	0.525	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	3E-03
Methyl ethyl ketone	2.500	No TBV	No TBV	No TBV	No TBV	2E-04	4E-05	9E-09	No TBV
Lead	473.000	6E+01	2E+01	4E-03	2E-04	6E-01	2E-01	1E-05	1E+00
Pyrene	0.770	No TBV	No TBV	No TBV	No TBV	2E-03	6E-04	1E-07	3E-02
Zinc	334.600	3E+00	8E-01	1E-04	2E-06	2E-01	4E-02	2E-06	7E+00
Sum		**1E+02**	**3E+01**	**5E-03**	**2E-04**	**3E+01**	**1E+00**	**2E-04**	**2E+01**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
p-Cresol	7.000	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Bis(2-ethylhexyl)phthalate	44.710	3E-03	8E-04	3E-07	1E-08	9E-05	2E-05	3E-09	4E-02
Barium	155.870	8E-03	2E-03	8E-07	4E-08	5E-03	9E-04	2E-07	3E-01
Cadmium	17.600	3E+00	1E-01	1E-05	5E-07	7E-01	2E-02	5E-06	2E-01
Chrysene	0.131	No TBV	No TBV	No TBV	No TBV	1E-05	3E-06	5E-10	3E-03
Copper	83.590	1E-01	2E-02	1E-06	3E-07	7E-02	1E-02	1E-06	2E-01
Fluoranthene	0.070	No TBV	No TBV	No TBV	No TBV	7E-06	1E-06	2E-10	1E-03
Manganese	426.900	1E-02	3E-03	1E-06	5E-08	7E-04	1E-04	2E-08	9E-01
Mercury	0.160	2E-03	4E-05	4E-07	2E-08	1E-03	9E-06	1E-08	2E-02
Toluene	0.525	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	5E-04
Methyl ethyl ketone	2.500	No TBV	No TBV	No TBV	No TBV	5E-05	1E-05	2E-09	No TBV
Lead	473.000	5E-01	2E-01	3E-05	2E-06	2E-02	4E-03	1E-07	5E-01
Pyrene	0.770	No TBV	No TBV	No TBV	No TBV	8E-05	2E-05	3E-09	2E-02
Zinc	334.600	1E-01	3E-02	2E-06	9E-08	3E-02	5E-03	2E-07	4E-01
Sum		**4E+00**	**4E-01**	**5E-05**	**3E-06**	**8E-01**	**4E-02**	**7E-06**	**2E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-83 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Fort Point Coast Guard Station, Miscellaneous Sites (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
m-Xylene	0.43	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[a]anthracene	8.440182	No TBV	No TBV	No TBV	No TBV	4E-02	1E-02	2E-06	3E-01
Benzo[b]fluoranthene	29.073	No TBV	No TBV	No TBV	No TBV	2E-01	4E-02	9E-06	1E+00
Benzo[ghi]perylene	5.854467	No TBV	No TBV	No TBV	No TBV	3E-02	8E-03	2E-06	NA
Benzo[k]fluoranthene	29.624	No TBV	No TBV	No TBV	No TBV	2E-01	4E-02	9E-06	NA
Trichlorofluoromethane	0.309	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	15.05606	No TBV	No TBV	No TBV	No TBV	8E-02	2E-02	4E-06	5E-01
DBANTR	4.287	No TBV	No TBV	No TBV	No TBV	2E-02	6E-03	1E-06	1E-01
Fluoranthene	53.686	No TBV	No TBV	No TBV	No TBV	3E-01	7E-02	2E-05	2E+00
Fluorene	8.167	No TBV	No TBV	No TBV	No TBV	4E-02	1E-02	2E-06	3E-01
Indeno[1,2,3-C,D]pyrene	0.31	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	9E-08	1E-02
Toluene	0.734	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	4E-03
Lead	387.295	8E+01	3E+01	5E-03	2E-04	9E-01	3E-01	1E-05	8E-01
Phenanthrene	49.929	No TBV	No TBV	No TBV	No TBV	3E-01	7E-02	1E-05	2E+00
PPDDT	0.05	2E+00	3E-02	3E-04	8E-06	1E-03	1E-05	2E-08	1E-03
Pyrene	45.337	No TBV	No TBV	No TBV	No TBV	2E-01	6E-02	1E-05	2E+00
Toluene	0.73	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	4E-03
Total Petroleum Hydrocarbons	22675.738	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TPH-diesel	380	2E-01	7E-02	5E-05	1E-06	3E-03	6E-04	9E-08	NA
Xylenes	1.079	No TBV	No TBV	No TBV	No TBV	5E-05	1E-05	3E-09	NA
Zinc	763.13	1E+01	3E+00	4E-04	9E-06	7E-01	1E-01	6E-06	2E+01
Sum		8E+01	3E+01	6E-03	3E-04	2E+00	6E-01	9E-05	8E+00

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-83 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Fort Point Coast Guard Station, Miscellaneous Sites (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
m-Xylene	0.43	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Benzo[a]anthracene	8.440182	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	5E-08	2E-01
Benzo[b]fluoranthene	29.073	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	2E-07	6E-01
Benzo[ghi]perylene	5.854467	No TBV	No TBV	No TBV	No TBV	1E-03	2E-04	3E-08	NA
Benzo[k]fluoranthene	29.624	No TBV	No TBV	No TBV	No TBV	5E-03	1E-03	2E-07	NA
Trichlorofluoromethane	0.309	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Chrysene	15.05606	No TBV	No TBV	No TBV	No TBV	3E-03	5E-04	9E-08	3E-01
DBANTR	4.287	No TBV	No TBV	No TBV	No TBV	8E-04	1E-04	3E-08	9E-02
Fluoranthene	53.686	No TBV	No TBV	No TBV	No TBV	9E-03	2E-03	3E-07	1E+00
Fluorene	8.167	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	5E-08	2E-01
Indeno[1,2,3-C,D]pyrene	0.31	No TBV	No TBV	No TBV	No TBV	5E-05	1E-05	2E-09	6E-03
Toluene	0.734	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	7E-04
Lead	387.295	7E-01	3E-01	5E-05	2E-06	2E-02	5E-03	2E-07	4E-01
Phenanthrene	49.929	No TBV	No TBV	No TBV	No TBV	9E-03	2E-03	3E-07	1E+00
PPDDT	0.05	6E-03	9E-05	8E-06	2E-08	9E-05	5E-07	8E-10	3E-04
Pyrene	45.337	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	3E-07	9E-01
Toluene	0.73	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	7E-04
Total Petroleum Hydrocarbons	22675.738	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TPH-diesel	380	5E-03	1E-03	5E-07	2E-08	1E-04	3E-05	4E-09	NA
Xylenes	1.079	No TBV	No TBV	No TBV	No TBV	4E-06	7E-07	1E-10	NA
Zinc	763.13	5E-01	1E-01	8E-06	3E-07	1E-01	2E-02	6E-07	9E-01
Sum		**7E-01**	**3E-01**	**6E-05**	**2E-06**	**7E-02**	**1E-02**	**2E-06**	**5E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-84 Hazard Indices for Receptors Exposed to Water and Sediments at Lobos Creek, Miscellaneous Sites (page 1 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants [1]	Aquatic Invertebrates [1]	Fish and Amphibians [1]	Mallard Duck [2]	Sandpiper [2]	Raccoon [2]	American Robin [3]	Mourning Dove [3]	Peregrine Falcon [3]	Red-tailed Hawk [3]	Western Harvest Mouse [3]	Valley Pocket Gopher [3]
Barium	22.6		6E+00	6E+00	6E+00	7E-05	2E-04	3E-04	1E-04	2E-05	3E-04	7E-05	5E-04	NA
Boron	346.3637		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Iron	3180		3E+00	3E+00	3E+00	2E-03	7E-03	1E-02	5E-03	5E-04	1E-02	2E-03	2E-02	NA
Lead	6.393825		3E+00	3E+00	3E+00	1E+02	8E+00	3E-02	6E-03	7E-04	6E-03	3E-03	4E-04	NA
Manganese	236		3E+00	3E+00	3E+00	2E-04	5E-04	5E-04	4E-04	4E-05	7E-04	2E-04	9E-04	NA
Vanadium	13		7E-01	7E-01	7E-01	8E-03	2E-02	1E-01	2E-02	2E-03	3E-02	8E-03	2E-01	NA
Bis(2-ethylhexyl)phthalate	1.1		3E-02	3E-02	3E-02	1E-05	3E-05	9E-06	2E-05	2E-06	4E-05	1E-05	2E-05	NA
Chloride	68664.077		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Fluoride	792.517		No TBV	No TBV	No TBV	No TBV	No TBV	2E-01	No TBV	No TBV	No TBV	No TBV	4E-01	NA
Nitrate	14762.387		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	63960.281		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Total dissolved solids	380000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Arsenic		14.619	No TBV	No TBV	No TBV	2E-03	2E-01	3E-02	No Data	No Data	No Data	No Data	No Data	NA
Sum			**2E+01**	**2E+01**	**2E+01**	**1E+02**	**9E+00**	**4E-01**	**3E-02**	**3E-03**	**5E-02**	**1E-02**	**6E-01**	

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-84 Hazard Indices for Receptors Exposed to Water and Sediments at Lobos Creek, Miscellaneous Sites (page 2 of 2)

HI LOW

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants [1]	Aquatic Invertebrates [1]	Fish and Amphibians [1]	Mallard Duck [2]	Sandpiper [2]	Raccoon [2]	American Robin [3]	Mourning Dove [3]	Peregrine Falcon [3]	Red-tailed Hawk [3]	Western Harvest Mouse [3]	Valley Pocket Gopher [3]
Barium	22.6		6E+00	6E+00	6E+00	7E-06	2E-05	5E-05	1E-05	2E-06	1E-05	7E-06	2E-04	NA
Boron	346.3637		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Iron	3180		3E+00	3E+00	3E+00	5E-04	1E-03	5E-04	1E-03	1E-04	1E-03	5E-04	2E-03	NA
Lead	6.393825		8E-01	8E-01	8E-01	1E+00	7E-02	5E-04	6E-05	6E-06	5E-05	3E-05	9E-06	NA
Manganese	236		3E+00	3E+00	3E+00	3E-05	1E-04	3E-05	7E-05	8E-06	7E-05	3E-05	1E-04	NA
Vanadium	13		7E-01	7E-01	7E-01	2E-03	5E-03	2E-02	3E-03	4E-04	3E-03	2E-03	7E-02	NA
Bis(2-ethylhexyl)phthalate	1.1		3E-02	3E-02	3E-02	4E-07	1E-06	2E-07	9E-07	1E-07	8E-07	4E-07	5E-07	NA
Chloride	68664.077		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Fluoride	792.517		No TBV	No TBV	No TBV	No TBV	No TBV	2E-02	No TBV	No TBV	No TBV	No TBV	6E-02	NA
Nitrate	14762.387		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	63960.281		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Total dissolved solids	380000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Arsenic		14.619	No TBV	No TBV	No TBV	6E-04	1E-02	1E-03	No Data	No Data	No Data	No Data	No Data	NA
Sum			**1E+01**	**1E+01**	**1E+01**	**1E+00**	**9E-02**	**4E-02**	**5E-03**	**5E-04**	**4E-03**	**2E-03**	**1E-01**	

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-85 Hazard Indices for Receptors Exposed to Water and Sediments at Mountain Lake, Miscellaneous Sites

HI HIGH

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants [1]	Aquatic Invertebrates [1]	Fish & Amphibians [1]	Mallard Duck [2]	Sandpiper [2]	Raccoon [2]	American Robin [3]	Mourning Dove [3]	Peregrine Falcon [3]	Red-tailed Hawk [3]	Western Harvest Mouse [3]	Valley Pocket Gopher [3]
Barium	56.4		1E+01	1E+01	1E+01	2E-04	5E-04	7E-04	4E-04	4E-05	7E-04	2E-04	1E-03	NA
Cyanide	8.137		8E+00	8E+00	8E+00	0E+00	0E+00	6E-02	No TBV	No TBV	No TBV	No TBV	1E-01	NA
Iron	492		5E-01	5E-01	5E-01	4E-04	1E-03	2E-03	8E-04	9E-05	2E-03	4E-04	4E-03	NA
Lead	9.086		4E+00	4E+00	4E+00	2E+02	1E+01	5E-02	9E-03	9E-04	8E-03	4E-03	6E-04	NA
Manganese	377.756		5E+00	5E+00	5E+00	3E-04	8E-04	8E-04	6E-04	6E-05	1E-03	3E-04	1E-03	NA
Vanadium	13		7E-01	7E-01	7E-01	8E-03	2E-02	1E-01	2E-02	2E-03	3E-02	8E-03	2E-01	NA
Bis(2-ethylhexyl)phthalate	1.3		4E-02	4E-02	4E-02	1E-05	4E-05	1E-05	3E-05	3E-06	5E-05	1E-05	2E-05	NA
TPH - diesel	60		3E+00	3E+00	3E+00	3E-05	4E-04	2E-05	3E-04	3E-05	6E-04	1E-04	8E-05	NA
TPH - gas fraction	1040		4E+01	4E+01	4E+01	5E-04	7E-03	3E-04	5E-03	6E-04	1E-02	2E-03	1E-03	NA
Heptachlor	0.009		1E+00	1E+00	1E+00	5E-05	2E-04	No TBV	6E-06	6E-07	1E-05	3E-06	No TBV	NA
Chloride	142039.53		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Fluoride	877.446		No TBV	No TBV	No TBV	No TBV	No TBV	2E-01	No TBV	No TBV	No TBV	No TBV	4E-01	NA
Nitrate	460		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	44100.469		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Total Dissolved Solids	620000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Aldrin	0.04128 [a]	0.003	1E-04	1E-03	1E-04	4E-02	7E-02	8E-02	5E-05	6E-06	1E-04	2E-05	1E-04	NA
Lindane		0.003	No TBV	1E+00	No TBV	3E-05	5E-04	No TBV	No Data	No Data	No Data	No Data	No TBV	NA
Sum			8E+01	8E+01	8E+01	2E+02	1E+01	5E-01	3E-02	4E-03	5E-02	2E-02	7E-01	

HQ Low

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants [1]	Aquatic Invertebrates [1]	Fish & Amphibians [1]	Mallard Duck [2]	Sandpiper [2]	Raccoon [2]	American Robin [3]	Mourning Dove [3]	Peregrine Falcon [3]	Red-tailed Hawk [3]	Western Harvest Mouse [3]	Valley Pocket Gopher [3]
Barium	56.4		1E+01	1E+01	1E+01	2E-05	5E-05	1E-04	4E-05	4E-06	3E-05	2E-05	4E-04	NA
Cyanide	8.137		2E+00	2E+00	2E+00	0E+00	0E+00	2E-04	No TBV	No TBV	No TBV	No TBV	7E-04	NA
Iron	492		5E-01	5E-01	5E-01	7E-05	2E-04	8E-05	2E-04	2E-05	2E-04	7E-05	2E-04	NA
Lead	9.086		1E+00	1E+00	1E+00	2E+00	1E-01	7E-04	8E-05	8E-06	7E-05	4E-05	1E-05	NA
Manganese	377.756		5E+00	5E+00	5E+00	5E-05	2E-04	5E-05	1E-04	1E-05	1E-04	5E-05	2E-04	NA
Vanadium	13		7E-01	7E-01	7E-01	2E-03	5E-03	2E-02	3E-03	4E-04	3E-03	2E-03	7E-02	NA
Bis(2-ethylhexyl)phthalate	1.3		4E-02	4E-02	4E-02	5E-07	1E-06	2E-07	1E-06	1E-07	1E-06	5E-07	6E-07	NA
TPH - diesel	60		3E+00	3E+00	3E+00	3E-06	8E-06	1E-06	6E-06	6E-07	6E-06	3E-06	3E-06	NA
TPH - gas fraction	1040		4E+01	4E+01	4E+01	5E-05	1E-04	2E-05	1E-04	1E-05	1E-04	5E-05	5E-05	NA
Heptachlor	0.009		1E+00	1E+00	1E+00	9E-06	5E-05	No TBV	1E-06	1E-07	1E-06	5E-07	No TBV	NA
Chloride	142039.53		No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Fluoride	877.446		No TBV	No TBV	No TBV	0E+00	No TBV	2E-02	No TBV	No TBV	No TBV	No TBV	7E-02	NA
Nitrate	460		No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	44100.469		No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Total Dissolved Solids	620000		No TBV	No TBV	No TBV	0E+00	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Aldrin	0.04128 [a]	3.00E-03	1E-04	1E-03	1E-04	8E-03	1E-02	2E-02	1E-05	1E-06	1E-05	5E-06	3E-05	NA
Lindane		0.003	No TBV	3E-01	No Data	6E-06	1E-04	No TBV	No Data	No Data	No Data	No Data	No Data	NA
Sum			7E+01	7E+01	7E+01	2E+00	1E-01	7E-02	4E-03	4E-04	4E-03	2E-03	1E-01	

[a] concentration modeled with equilibrium partitioning

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-86 Hazard Indices for Shallow Soils (< 3ft) for Baker Beach Disturbed Area 1 Outside of the Mounded Refuse Area, Baker Beach Study Area (page 1of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
2-methylnaphthalene	0.017103	No TBV	No TBV	No TBV	No TBV	5E-04	1E-04	1E-07	No TBV
Bis(2-ethylhexyl)phthlate	0.248123	6E-03	8E-04	3E-06	6E-08	1E-04	3E-05	3E-08	2E-03
Trichlorofluoromethane	0.02	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methylene Chloride	0.23	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
d-Benzene hexachloride	0.001686	5E-04	8E-05	3E-07	6E-09	No TBV	No TBV	No TBV	No TBV
Dieldrin	0.067	4E+00	2E-02	2E-03	2E-06	6E-01	3E-03	2E-04	1E-03
Di-n-butyl phthalate	1.134578	8E-01	7E-02	4E-04	8E-06	6E-04	1E-04	1E-07	1E-02
Endrin	0.003167	8E-02	1E-02	4E-05	8E-07	2E-05	3E-06	2E-09	No TBV
ENDRN+A53A	0.002801	7E-02	9E-03	3E-05	7E-07	1E-05	2E-06	2E-09	No TBV
Fluorene	0.061369	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	4E-07	2E-03
Lindane	0.004912	4E-03	5E-04	2E-06	4E-08	No TBV	No TBV	No TBV	No TBV
PCB254	0.144876	2E+01	9E-02	3E-03	4E-04	6E-01	3E-03	4E-05	4E-03
Phenanthrene	0.056538	No TBV	No TBV	No TBV	No TBV	2E-03	3E-04	3E-07	2E-03
PPDDD	0.008051	4E-01	3E-03	3E-04	2E-06	1E-03	8E-06	6E-08	2E-04
PPDDE	0.028	7E-01	5E-03	5E-04	6E-06	4E-03	3E-05	2E-07	7E-04
PPDDT	0.17	6E+01	4E-01	2E-02	5E-04	2E-02	2E-04	1E-06	4E-03
Pyrene	0.12	No TBV	No TBV	No TBV	No TBV	3E-03	7E-04	7E-07	4E-03
Antimony	123	No TBV	No TBV	No TBV	No TBV	2E+00	4E-01	4E-04	2E+01
Selenium	2.37	2E+02	3E+01	6E-03	1E-04	2E+02	5E+01	5E-03	2E+00
TPH-diesel	24.40466	1E-01	2E-02	7E-05	2E-06	1E-03	2E-04	1E-07	No TBV
Sum		**3E+02**	**4E+01**	**3E-02**	**1E-03**	**2E+02**	**5E+01**	**6E-03**	**3E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value

Table 15.2-86 Hazard Indices for Shallow Soils (< 3ft) for Baker Beach Disturbed Area 1 Outside of the Mounded Refuse Area, Baker Beach Study Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
2-methylnaphthalene	0.017103	No TBV	No TBV	No TBV	No TBV	2E-05	3E-06	2E-09	No TBV
Bis(2-ethylhexyl)phthlate	0.248123	2E-04	3E-05	6E-08	3E-09	4E-06	7E-07	6E-10	2E-04
Trichlorofluoromethane	0.02	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Methylene Chloride	0.23	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
d-Benzene hexachloride	0.001686	2E-06	3E-07	5E-10	2E-11	No TBV	No TBV	No TBV	No TBV
Dieldrin	0.067	9E-01	4E-03	2E-04	5E-07	2E-01	7E-04	4E-05	7E-04
Di-n-butyl phthalate	1.134578	2E-01	2E-02	4E-05	2E-06	No TBV	No TBV	No TBV	1E-03
Endrin	0.003167	3E-03	4E-04	6E-07	3E-08	2E-07	3E-08	2E-11	No TBV
ENDRN+A53A	0.002801	2E-03	3E-04	5E-07	2E-08	1E-07	2E-08	2E-11	No TBV
Fluorene	0.061369	No TBV	No TBV	No TBV	No TBV	5E-05	9E-06	7E-09	1E-03
Lindane	0.004912	8E-04	1E-04	2E-07	8E-09	No TBV	No TBV	No TBV	No TBV
PCB254	0.144876	3E-01	2E-03	3E-05	8E-06	4E-02	2E-04	1E-06	6E-04
Phenanthrene	0.056538	No TBV	No TBV	No TBV	No TBV	5E-05	8E-06	7E-09	1E-03
PPDDD	0.008051	8E-03	6E-05	3E-05	7E-08	7E-05	4E-07	3E-09	4E-05
PPDDE	0.028	3E-02	2E-04	1E-05	3E-07	2E-04	1E-06	9E-09	1E-04
PPDDT	0.17	2E-01	1E-03	5E-04	2E-06	1E-03	8E-06	5E-08	9E-04
Pyrene	0.12	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	1E-08	2E-03
Antimony	123	No TBV	No TBV	No TBV	No TBV	6E-01	1E-01	8E-05	2E+01
Selenium	2.37	4E+01	7E+00	6E-04	3E-05	1E+01	2E+00	2E-04	3E-02
TPH-diesel	24.40466	3E-03	4E-04	7E-07	3E-08	4E-05	7E-06	6E-09	No TBV
Sum		**4E+01**	**7E+00**	**1E-03**	**4E-05**	**1E+01**	**3E+00**	**3E-04**	**2E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-87 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Disturbed Area 1 Mounded Landfill Material Area, Baker Beach Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	3700	1E+03	5E+02	9E-02	4E-03	2E+01	5E+00	2E-04	7E+00
Zinc	13100	4E+02	9E+01	1E-02	3E-04	2E+01	4E+00	2E-04	3E+02
Sum		**2E+03**	**6E+02**	**1E-01**	**4E-03**	**3E+01**	**9E+00**	**4E-04**	**3E+02**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	3700	1E+01	5E+00	8E-04	4E-05	4E-01	8E-02	3E-06	4E+00
Zinc	13100	2E+01	4E+00	2E-04	1E-05	3E+00	6E-01	2E-05	2E+01
Sum		**3E+01**	**8E+00**	**1E-03**	**5E-05**	**4E+00**	**6E-01**	**2E-05**	**2E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-88 Hazard Indices for Receptors Exposed to Water and Sediments at Disturbed Area 1 Seep, Baker Beach Study Area (page 1 of 2)

HI HIGH

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants [1]	Aquatic Invertebrates [1]	Fish [1]	Raccoon [2]	American Robin [3]	Mourning Dove [3]	Peregrine Falcon [3]	Red-tailed Hawk [3]	Western Harvest Mouse [3]	Valley Pocket Gopher [3]
Barium	101	1290	3E+01	3E+01	3E+01	3E-01	7E-04	7E-05	1E-03	3E-04	2E-03	NA
Manganese	187		2E+00	2E+00	2E+00	4E-04	3E-04	3E-05	5E-04	1E-04	7E-04	NA
Vanadium	11.8		6E-01	6E-01	6E-01	1E-01	2E-02	2E-03	3E-02	7E-03	2E-01	NA
Zinc	29.3	3300	4E-01	3E+01	4E-01	2E-01	5E-04	5E-05	9E-04	2E-04	1E-04	NA
Chloride	200000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Nitrate	199		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	78000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Total Dissolved Solids	973000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TPH-diesel	0.01 [a]	6	4E-04	1E+02	4E-04	4E-05	5E-08	5E-09	9E-08	2E-08	1E-08	NA
PCB1260	0.0002016 [a]	0.126	1E-03	5E+00	1E-03	3E-03	7E-07	8E-08	1E-06	3E-07	4E-07	NA
PPDDE	0.0000116 [a]	0.006	9E-04	1E+00	9E-04	6E-06	1E-08	1E-09	2E-08	6E-09	1E-09	NA
Copper		387	No Data	2E+01	No Data	3E-01	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Lead		3700	No Data	1E+02	No Data	2E+00	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Silver		6.09	No Data	No Data	No Data	8E-04	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sum			**3E+01**	**4E+02**	**3E+01**	**3E+00**	**2E-02**	**2E-03**	**3E-02**	**8E-03**	**2E-01**	

[a] Concentration modeled with equilibrium partitioning

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-88 Hazard Indices for Receptors Exposed to Water and Sediments at Disturbed Area 1 Seep, Baker Beach Study Area (page 2 of 2)

HI Low

Analyte	Water EPC (ug/L)	Sediment EPC (mg/kg)	Aquatic Plants [1]	Aquatic Invertebrates [1]	Fish [1]	Raccoon [2]	American Robin [3]	Mourning Dove [3]	Peregrine Falcon [3]	Red-tailed Hawk [3]	Western Harvest Mouse [3]	Valley Pocket Gopher [3]
Barium	101	1290	3E+01	3E+01	3E+01	6E-02	7E-05	7E-06	6E-05	3E-05	7E-04	NA
Manganese	187		2E+00	2E+00	2E+00	3E-05	6E-05	6E-06	5E-05	3E-05	8E-05	NA
Vanadium	11.8		6E-01	6E-01	6E-01	2E-02	3E-03	3E-04	3E-03	1E-03	6E-02	NA
Zinc	29.3	3300	3E-01	4E+00	3E-01	2E-02	2E-05	2E-06	2E-05	9E-06	2E-05	NA
Chloride	200000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Nitrate	199		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sulfate	78000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Total dissolved Solids	973000		No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
TPH-diesel	0.01 [a]	6	4E-04	1E+01	4E-04	2E-06	1E-09	1E-10	9E-10	5E-10	5E-10	NA
PCB1260	0.0002016 [a]	0.126	1E-03	2E-02	1E-03	1E-04	1E-08	2E-09	1E-08	7E-09	3E-08	NA
PPDDE	0.0000116 [a]	0.006	9E-04	3E-02	9E-04	2E-07	5E-10	5E-11	5E-10	2E-10	7E-11	NA
Copper		387	No Data	4E+00	No Data	5E-02	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Lead		3700	No Data	1E+01	No Data	4E-02	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Silver		6.09	No Data	No Data	No Data	2E-04	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Sum			**3E+01**	**6E+01**	**3E+01**	**2E-01**	**3E-03**	**3E-04**	**3E-03**	**1E-03**	**6E-02**	

[a] Concentration modeled with equilibrium partitioning

[1] HIs include sediment, diet, and water pathways

[2] HIs include sediment, dermal, diet, and water pathways

[3] HIs include pathway for water only

HI - hazard index (sum of hazard quotients)

EPC - exposure point concentration

TBV - toxicity benchmark value

NA - not applicable

Table 15.2-89 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Disturbed Area 1a, Baker Beach Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Acenaphthylene	0.3	No TBV	No TBV	No TBV	No TBV	2E-03	4E-04	9E-08	No TBV
Benzo[a]anthracene	0.6	No TBV	No TBV	No TBV	No TBV	3E-03	8E-04	2E-07	2E-02
Benzo[a]pyrene	2	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	6E-07	7E-02
Benzo[b]fluoranthene	2	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	6E-07	7E-02
Benzo[ghi]perylene	3	No TBV	No TBV	No TBV	No TBV	2E-02	4E-03	9E-07	1E-01
d-Benzene hexachloride	0.007	2E-04	7E-05	5E-08	1E-09	No TBV	No TBV	No TBV	No TBV
Di-n-butyl phthalate	3.2	2E-01	4E-02	5E-05	1E-06	3E-04	9E-05	2E-08	3E-02
Fluoranthene	2	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	6E-07	7E-02
Heptachlor epoxide	0.023	3E-02	1E-03	3E-05	4E-08	No TBV	No TBV	No TBV	No TBV
Indeno[1,2,3-C,D]pyrene	2	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	6E-07	7E-02
Lindane	0.008	7E-04	2E-04	2E-07	3E-09	No TBV	No TBV	No TBV	No TBV
Phenanthrene	1	No TBV	No TBV	No TBV	No TBV	6E-03	1E-03	3E-07	3E-02
Pyrene	2	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	6E-07	7E-02
TPH-diesel	48	3E-02	9E-03	7E-06	2E-07	4E-04	8E-05	1E-08	No TBV
Sum		**3E-01**	**5E-02**	**9E-05**	**1E-06**	**8E-02**	**2E-02**	**5E-06**	**5E-01**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Acenaphthylene	0.3	No TBV	No TBV	No TBV	No TBV	6E-05	1E-05	2E-09	No TBV
Benzo[a]anthracene	0.6	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	4E-09	1E-02
Benzo[a]pyrene	2	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	1E-08	4E-02
Benzo[b]fluoranthene	2	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	1E-08	4E-02
Benzo[ghi]perylene	3	No TBV	No TBV	No TBV	No TBV	6E-04	1E-04	2E-08	6E-02
d-Benzene hexachloride	0.007	1E-06	3E-07	1E-10	5E-12	No TBV	No TBV	No TBV	No TBV
Di-n-butyl phthalate	3.2	5E-02	1E-02	5E-06	2E-07	No TBV	No TBV	No TBV	3E-03
Fluoranthene	2	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	1E-08	4E-02
Heptachlor epoxide	0.023	7E-03	2E-04	3E-06	8E-09	No TBV	No TBV	No TBV	No TBV
Indeno[1,2,3-C,D]pyrene	2	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	1E-08	4E-02
Lindane	0.008	1E-04	4E-05	2E-08	7E-10	No TBV	No TBV	No TBV	No TBV
Phenanthrene	1	No TBV	No TBV	No TBV	No TBV	2E-04	3E-05	6E-09	2E-02
Pyrene	2	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	1E-08	4E-02
TPH-diesel	48	6E-04	2E-04	7E-08	3E-09	2E-05	3E-06	6E-10	No TBV
Sum		**6E-02**	**1E-02**	**9E-06**	**3E-07**	**3E-03**	**5E-04**	**9E-08**	**3E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value

Table 15.2-90 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Disturbed Area 2, Baker Beach Study Area (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
a-Benzene hexachloride	0.004	9E-04	2E-04	2E-07	5E-09	No TBV	No TBV	No TBV	No TBV
Acenaphthylene	0.1	No TBV	No TBV	No TBV	No TBV	3E-03	6E-04	2E-07	NA
Anthracene	0.081	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	2E-07	NA
Benzo[a]anthracene	0.52	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	1E-06	2E-02
Benzo[a]pyrene	0.54	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	1E-06	2E-02
Benzo[b]fluoranthene	0.47	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	9E-07	2E-02
Benzo[k]fluoranthene	0.38	No TBV	No TBV	No TBV	No TBV	1E-02	2E-03	8E-07	NA
Palmitic Acid	2.1	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Bezene	0.001756	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Trichlorofluoromethane	0.005	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Chrysene	0.47	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	9E-07	2E-02
Endrin	0.006	1E-01	2E-02	2E-05	5E-07	3E-05	5E-06	1E-09	No TBV
Fluoranthene	0.56	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	1E-06	2E-02
Fluorene	0.0496	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	1E-07	2E-03
Indeno[1,2,3-C,D]pyrene	0.09	No TBV	No TBV	No TBV	No TBV	2E-03	5E-04	2E-07	3E-03
Naphthalene	0.051	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	1E-07	2E-03
Phenanthrene	0.44	No TBV	No TBV	No TBV	No TBV	1E-02	3E-03	9E-07	1E-02
PPDDE	0.012	2E-01	2E-03	8E-05	9E-07	2E-03	1E-05	3E-08	3E-04
PPDDT	0.022	5E+00	6E-02	1E-03	2E-05	3E-03	2E-05	6E-08	6E-04
Pyrene	0.91	No TBV	No TBV	No TBV	No TBV	2E-02	5E-03	2E-06	3E-02
TPH-diesel	58	3E-01	5E-02	6E-05	1E-06	3E-03	4E-04	9E-08	NA
Xylenes	0.004	No TBV	No TBV	No TBV	No TBV	9E-07	2E-07	6E-11	NA
Sum		**6E+00**	**1E-01**	**1E-03**	**3E-05**	**1E-01**	**3E-02**	**1E-05**	**1E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-90 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Disturbed Area 2, Baker Beach Study Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
a-Benzene hexachloride	0.004	4E-06	7E-07	4E-10	2E-11	No TBV	No TBV	No TBV	No TBV
Acenaphthylene	0.1	No TBV	No TBV	No TBV	No TBV	9E-05	1E-05	4E-09	NA
Anthracene	0.081	No TBV	No TBV	No TBV	No TBV	7E-05	1E-05	3E-09	NA
Benzo[a]anthracene	0.52	No TBV	No TBV	No TBV	No TBV	5E-04	8E-05	2E-08	1E-02
Benzo[a]pyrene	0.54	No TBV	No TBV	No TBV	No TBV	5E-04	8E-05	2E-08	1E-02
Benzo[b]fluoranthene	0.47	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	2E-08	9E-03
Benzo[k]fluoranthene	0.38	No TBV	No TBV	No TBV	No TBV	3E-04	6E-05	2E-08	NA
Palmitic Acid	2.1	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Bezene	0.001756	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Trichlorofluoromethane	0.005	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	NA
Chrysene	0.47	No TBV	No TBV	No TBV	No TBV	4E-04	7E-05	2E-08	9E-03
Endrin	0.006	3E-03	7E-04	4E-07	2E-08	3E-07	5E-08	1E-11	No TBV
Fluoranthene	0.56	No TBV	No TBV	No TBV	No TBV	5E-04	8E-05	2E-08	1E-02
Fluorene	0.0496	No TBV	No TBV	No TBV	No TBV	4E-05	7E-06	2E-09	1E-03
Indeno[1,2,3-C,D]pyrene	0.09	No TBV	No TBV	No TBV	No TBV	8E-05	1E-05	4E-09	2E-03
Naphthalene	0.051	No TBV	No TBV	No TBV	No TBV	5E-05	7E-06	2E-09	1E-03
Phenanthrene	0.44	No TBV	No TBV	No TBV	No TBV	4E-04	6E-05	2E-08	9E-03
PPDDE	0.012	9E-03	9E-05	2E-06	4E-08	1E-04	6E-07	1E-09	6E-05
PPDDT	0.022	2E-02	2E-04	2E-05	7E-08	2E-04	1E-06	2E-09	1E-04
Pyrene	0.91	No TBV	No TBV	No TBV	No TBV	8E-04	1E-04	4E-08	2E-02
TPH-diesel	58	5E-03	1E-03	6E-07	3E-08	1E-04	2E-05	5E-09	NA
Xylenes	0.004	No TBV	No TBV	No TBV	No TBV	7E-08	1E-08	3E-12	NA
Sum		**3E-02**	**2E-03**	**3E-05**	**1E-07**	**5E-03**	**7E-04**	**2E-07**	**8E-02**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-91 Hazard Indices for Shallow Soils (< 3ft) at Baker Beach Disturbed Area 3, Baker Beach Study Area (page 1 of 2)

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Bis(2-ethylhexyl) phthalate	2.490	6E-02	8E-03	9E-05	2E-06	1E-03	3E-04	9E-07	2E-02
Benzo[a]anthracene	0.048	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	9E-07	2E-03
Benzo[k]fluoranthene	0.043	No TBV	No TBV	No TBV	No TBV	1E-03	3E-04	8E-07	NA
Cobalt	161.300	2E-01	3E-02	3E-04	7E-06	2E+00	3E-01	1E-03	7E+00
Chromium	656.222	4E+02	5E+01	6E-01	1E-02	1E+00	2E-01	5E-04	2E+03
Dieldrin	0.012	7E-01	3E-03	9E-04	1E-06	1E-01	5E-04	8E-05	2E-04
Endrin	0.004	9E-02	1E-02	1E-04	3E-06	2E-05	3E-06	7E-09	No TBV
Fluoranthene	0.139	No TBV	No TBV	No TBV	No TBV	4E-03	8E-04	3E-06	5E-03
Iron	50780.440	1E+02	1E+01	1E-01	3E-03	1E+01	3E+00	9E-03	5E+01
Heptachlor epoxide	0.003	4E-02	5E-04	2E-04	3E-07	No TBV	No TBV	No TBV	No TBV
Nickel	3019.790	1E+02	2E+01	2E-01	4E-03	3E+00	6E-01	4E-03	1E+02
Lead	1000.000	2E+03	4E+02	8E-01	4E-02	1E+01	3E+00	2E-03	2E+00
Phenanthracene	0.300	No TBV	No TBV	No TBV	No TBV	8E-03	2E-03	5E-06	1E-02
PPDDD	0.009	6E-01	4E-03	1E-03	9E-06	2E-03	1E-05	3E-07	3E-04
PPDDT	0.047	2E+01	1E-01	2E-02	4E-04	6E-03	4E-05	1E-06	1E-03
PCB-1254	0.078	8E+00	5E-02	5E-03	7E-04	3E-01	2E-03	6E-05	2E-03
Pyrene	0.600	No TBV	No TBV	No TBV	No TBV	2E-02	4E-03	1E-05	2E-02
Antimony	60.394	No TBV	No TBV	No TBV	No TBV	9E-01	2E-01	6E-04	1E+01
TPH-diesel	33.959	2E-01	3E-02	3E-04	7E-06	2E-03	2E-04	5E-07	NA
Zinc	715.683	1E+01	2E+00	2E-02	5E-04	1E-01	2E-02	8E-05	1E+01
Sum		**3E+03**	**4E+02**	**2E+00**	**6E-02**	**3E+01**	**7E+00**	**2E-02**	**2E+03**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-91 Hazard Indices for Shallow Soils (< 3ft) at Baker Beach Disturbed Area 3, Baker Beach Study Area (page 2 of 2)

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Bis(2-ethylhexyl) phthalate	2.490	2E-03	3E-04	2E-06	8E-08	4E-05	7E-06	2E-08	2E-03
Benzo[a]anthracene	0.048	No TBV	No TBV	No TBV	No TBV	4E-05	7E-06	2E-08	1E-03
Benzo[k]fluoranthene	0.043	No TBV	No TBV	No TBV	No TBV	4E-05	6E-06	2E-08	NA
Cobalt	143.137	9E-03	1E-03	6E-06	3E-07	1E-01	2E-02	4E-05	2E+00
Chromium	656.222	8E+01	1E+01	6E-02	3E-03	3E-01	5E-02	1E-04	3E+00
Dieldrin	0.011	1E-01	6E-04	9E-05	2E-07	3E-02	1E-04	2E-05	1E-04
Endrin	0.004	3E-03	4E-04	2E-06	9E-08	2E-07	3E-08	7E-11	No TBV
Fluoranthene	0.139	No TBV	No TBV	No TBV	No TBV	1E-04	2E-05	5E-08	3E-03
Iron	50780.440	2E+01	3E+00	1E-02	6E-04	9E-01	1E-01	4E-04	5E+01
Heptachlor epoxide	0.003	7E-03	1E-04	2E-05	6E-08	No TBV	No TBV	No TBV	No TBV
Nickel	3019.790	5E+00	7E-01	4E-03	2E-04	2E-01	3E-02	9E-04	6E+00
Lead	1000.000	2E+01	3E+00	7E-03	3E-04	3E-01	5E-02	3E-05	1E+00
Phenanthracene	0.300	No TBV	No TBV	No TBV	No TBV	3E-04	4E-05	1E-07	6E-03
PPDDD	0.011	1E-02	9E-05	1E-04	3E-07	1E-04	5E-07	1E-08	6E-05
PPDDT	0.047	5E-02	4E-04	4E-04	1E-06	4E-04	2E-06	5E-08	2E-04
PCB-1254	0.078	2E-01	1E-03	5E-05	1E-05	2E-02	9E-05	2E-06	3E-04
Pyrene	0.600	No TBV	No TBV	No TBV	No TBV	5E-04	9E-05	2E-07	1E-02
Antimony	60.394	No TBV	No TBV	No TBV	No TBV	3E-01	5E-02	1E-04	1E+01
TPH-diesel	33.959	4E-03	6E-04	3E-06	1E-07	6E-05	1E-05	2E-08	NA
Zinc	715.683	6E-01	8E-02	4E-04	2E-05	2E-02	3E-03	8E-06	8E-01
Sum		**1E+02**	**2E+01**	**8E-02**	**4E-03**	**2E+00**	**3E-01**	**2E-03**	**8E+01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-92 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Disturbed Area 4, Baker Beach Study Area

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Chlordane	**0.4**	1E+01	5E-02	2E-03	7E-06	No TBV	No TBV	No TBV	No TBV
PPDDT	**0.1**	3E+01	3E-01	6E-03	1E-04	1E-02	9E-05	4E-07	3E-03
TPH-diesel	**108.2195**	6E-01	9E-02	1E-04	3E-06	5E-03	8E-04	2E-07	NA
Sum		**4E+01**	**4E-01**	**8E-03**	**1E-04**	**2E-02**	**9E-04**	**6E-07**	**3E-03**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Chlordane	0.4	1E+00	5E-03	1E-04	7E-07	No TBV	No TBV	No TBV	No TBV
PPDDT	0.1	1E-01	8E-04	1E-04	4E-07	9E-04	5E-06	1E-08	5E-04
TPH-diesel	108.2195	1E-02	2E-03	1E-06	6E-08	2E-04	3E-05	1E-08	NA
Sum		**1E+00**	**7E-03**	**2E-04**	**1E-06**	**1E-03**	**4E-05**	**3E-08**	**5E-04**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-93 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Battery Howe/Wagner

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Chromium	301.758	2E+02	2E+01	2E-01	5E-03	7E-01	1E-01	2E-04	8E+02
DNBP	0.544	4E-01	3E-02	5E-04	1E-05	3E-04	6E-05	2E-07	5E-03
Nickel	828.483	4E+01	5E+00	5E-02	1E-03	7E-01	2E-01	9E-04	3E+01
Phenanthrene	0.071	0E+00	0E+00	0E+00	0E+00	2E-03	4E-04	1E-06	2E-03
Pyrene	0.071	0E+00	0E+00	0E+00	0E+00	2E-03	4E-04	1E-06	2E-03
Antimony	25.486	0E+00	0E+00	0E+00	0E+00	4E-01	8E-02	2E-04	5E+00
TPH - diesel	19.000	1E-01	2E-02	1E-04	3E-06	8E-04	1E-04	2E-07	No TBV
Sum		**2E+02**	**3E+01**	**3E-01**	**6E-03**	**2E+00**	**3E-01**	**1E-03**	**8E+02**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Chromium	301.758	4E+01	5E+00	2E-02	1E-03	1E-01	2E-02	5E-05	2E+00
DNBP	0.544	7E-02	1E-02	5E-05	2E-06	0E+00	0E+00	0E+00	5E-04
Nickel	828.483	1E+00	2E-01	9E-04	4E-05	5E-02	8E-03	2E-04	2E+00
Phenanthrene	0.071	0E+00	0E+00	0E+00	0E+00	6E-05	1E-05	2E-08	1E-03
Pyrene	0.071	0E+00	0E+00	0E+00	0E+00	6E-05	1E-05	2E-08	1E-03
Antimony	25.486	0E+00	0E+00	0E+00	0E+00	1E-01	2E-02	5E-05	5E+00
TPH - diesel	19.000	2E-03	3E-04	1E-06	7E-08	3E-05	6E-06	1E-08	No TBV
Sum		**4E+01**	**5E+00**	**2E-02**	**1E-03**	**3E-01**	**5E-02**	**3E-04**	**8E+00**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-94. Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 302, Miscellaneous Follow-on RI Sites

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
24D	0.0378	No TBV	No TBV	No TBV	No TBV	NA	NA	NA	NA
Cyanide	0.776	No TBV	No TBV	No TBV	No TBV	NA	NA	NA	NA
Dicamba	0.0493	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Mercury	2.42	3E+01	5E-01	6E-03	3E-04	9E-01	8E-03	1E-05	8E+00
Sum		**3E+01**	**5E-01**	**6E-03**	**3E-04**	**9E-01**	**8E-03**	**1E-05**	**8E+00**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
24D	0.0378	No TBV	No TBV	No TBV	No TBV	NA	NA	NA	NA
Cyanide	0.776	No TBV	No TBV	No TBV	No TBV	NA	NA	NA	NA
Dicamba	0.0493	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV	No TBV
Mercury	2.42	8E-02	2E-03	2E-05	9E-07	6E-02	4E-04	5E-07	2E-01
Sum		**8E-02**	**2E-03**	**2E-05**	**9E-07**	**6E-02**	**4E-04**	**5E-07**	**2E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-95 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 1245, Miscellaneous Follow-on RI Sites

HI-HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Di-n-butyl phthalate	0.0909	1E-03	3E-04	3E-07	7E-09	2E-06	5E-07	1E-10	9E-04
Dieldrin	0.0071	1E-02	9E-05	2E-06	3E-09	3E-03	2E-05	2E-07	1E-04
Fluoranthene	0.0873	No TBV	No TBV	No TBV	No TBV	1E-04	3E-05	6E-09	3E-03
ppDDE	0.013	4E-04	1E-04	9E-08	2E-09	2E-06	5E-07	1E-10	3E-04
ppDDT	0.0773	6E-01	1E-02	1E-04	3E-06	5E-04	4E-06	7E-09	2E-03
Pyrene	0.0654	No TBV	No TBV	No TBV	No TBV	8E-05	2E-05	4E-09	2E-03
Sum		**6E-01**	**1E-02**	**1E-04**	**3E-06**	**4E-03**	**7E-05**	**2E-07**	**8E-03**

HI-LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Di-n-butyl phthalate	0.0909	3E-04	9E-05	3E-08	1E-09	0E+00	0E+00	0E+00	9E-05
Dieldrin	0.0071	2E-03	2E-05	2E-07	6E-10	8E-04	4E-06	4E-08	7E-05
Fluoranthene	0.0873	No TBV	No TBV	No TBV	No TBV	3E-06	7E-07	1E-10	2E-03
ppDDE	0.013	2E-05	4E-06	2E-09	8E-11	1E-07	2E-08	4E-12	7E-05
ppDDT	0.0773	2E-03	3E-05	3E-06	8E-09	3E-05	2E-07	3E-10	4E-04
Pyrene	0.0654	No TBV	No TBV	No TBV	No TBV	3E-06	5E-07	9E-11	1E-03
Sum		**4E-03**	**1E-04**	**3E-06**	**1E-08**	**9E-04**	**5E-06**	**4E-08**	**4E-03**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-96 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 1369, Miscellaneous Follow-on RI Sites

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	365	5E+00	2E+00	3E-04	1E-05	5E-02	1E-02	7E-07	7E-01
Sum		**5E+00**	**2E+00**	**3E-04**	**1E-05**	**5E-02**	**1E-02**	**7E-07**	**7E-01**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
Lead	365	4E-02	1E-02	3E-06	1E-07	1E-03	3E-04	1E-08	4E-01
Sum		**4E-02**	**1E-02**	**3E-06**	**1E-07**	**1E-03**	**3E-04**	**1E-08**	**4E-01**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable

Table 15.2-97 Hazard Indices for Exposure to Shallow Soils (< 3ft) at Building 1388, Miscellaneous Follow-on RI Sites

HI HIGH

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
TPH-diesel	100	2E-02	6E-03	5E-06	1E-07	3E-04	6E-05	8E-09	NA
Sum		**2E-02**	**6E-03**	**5E-06**	**1E-07**	**3E-04**	**6E-05**	**8E-09**	**No TBV**

HI LOW

Analyte	EPC (mg/kg)	American Robin	Mourning Dove	Peregrine Falcon	Red-tailed Hawk	Western Harvest Mouse	Valley Pocket Gopher	Raccoon	Plants & Soil Fauna
TPH-diesel	100	5E-04	1E-04	5E-08	2E-09	1E-05	2E-06	4E-10	NA
Sum		**5E-04**	**1E-04**	**5E-08**	**2E-09**	**1E-05**	**2E-06**	**4E-10**	**No TBV**

NOTE: HIs include soil ingestion, dietary, and dermal pathways for mammals and birds; direct contact for plants and soil fauna

HI - hazard index (sum of hazard quotients)
EPC - exposure point concentration
TBV - toxicity benchmark value
NA - not applicable